



**OFFICE OF SURFACE MINING
RECLAMATION AND ENFORCEMENT**

**Annual Evaluation Summary Report
for the
Regulatory Program
Administered by the State
of
Utah
for
Evaluation Year 1999
(October 1, 1998, through September 30, 1999)**

November 1999

UTAH PROGRAM EVALUATION TEAM FOR 1999



Pictured left to right.

Front row: Pamela Grubaugh-Littig (Utah Division of Oil, Gas and Mining (DOGM)), Ranvir Singh (Office of Surface Mining (OSM)), Michael Rosenthal (OSM), and Dennis Winterringer (OSM).

Back row: James Fulton (OSM, Team Coach), Mary Ann Wright (DOGM, Team Coach), Randall Harden (DOGM), and Daron Haddock (DOGM).

Not pictured.

Henry Austin (OSM) and Ronald Sassaman (OSM).

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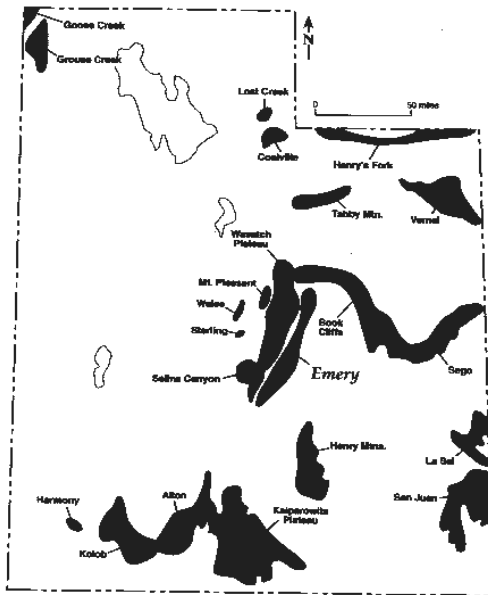
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I. Introduction

The Surface Mining Control and Reclamation Act of 1977 (SMCRA) created the Office of Surface Mining Reclamation and Enforcement (OSM) in the Department of the Interior. SMCRA provides authority to OSM to oversee the implementation of and provide Federal funding for State regulatory programs that have been approved by OSM as meeting the minimum standards of SMCRA. This report contains summary information regarding the Utah Program and the effectiveness of the Utah program in meeting the applicable purposes of SMCRA as specified in section 102. This report covers the period of October 1, 1998, through September 30, 1999. Detailed background information and comprehensive reports for the program elements evaluated during the period are available for review and copying at the OSM Denver Field Division office.

II. Overview of the Utah Coal Mining Industry

Coal is found beneath approximately 18 percent of the state of Utah, but only 4 percent is considered minable at this time. The demonstrated coal reserve base is about 6.4 billion tons, which is 1.3 percent of the national reserve base. Most of Utah's coal resources are held by the State and Federal governments and Indian tribes.



Utah coal fields are shown on the figure to the left (Utah Geological Survey, "Survey Notes", September 1998). In 1997, only the Wasatch and Book Cliffs coal fields were being actively mined. These coal fields respectively accounted for 86.7 and 13.3 of the total 1997 production (Utah Department of Natural Resources, Office of Energy and Resource Planning, "1997 Annual Review and Forecast of Utah Coal Production and Distribution", September 1998).

Most of the coal is bituminous and is of Cretaceous age. The Btu value is high compared to most other western States. Sulfur content ranges from medium to low in the more important coal fields.

Coal production steadily increased from the early 1970's and peaked in 1996 at almost 29 million tons. Production in 1998 was approximately 27.5 million tons (table 1). The majority of the coal production is produced by underground mining operations, which mostly mine seams exceeding 8 feet in thickness.

Currently, there are 29 permitted operations (table 2) that have thus far disturbed 2,349 acres (table 2). Utah considers each of these operations to be an inspectable unit. Of these 29 operations, 28 are active or temporarily inactive, 1 is inactive, and none are abandoned (table 2). Of the 28 active or temporarily inactive operations, 10 are underground mines that use the longwall mining method, 13 are underground mines that use the room-and-pillar mining method (1 of these mines has a permitted coal preparation plant/loadout facility at the minesite, and 1 other has a permitted coal preparation plant/loadout facility and a surface mining operation extracting coal from a coal mine waste pond), 1 is a surface mining operation extracting coal from an underground mine refuse pile, and 4 are coal preparation plants/loadout facilities (1 of these facilities also has a surface mining operation extracting coal from a coal mine waste pond).

Utah's coal industry has a significant impact on the local economies where mining occurs. The State of Utah projected that coal mining would employ 2,341 persons in 1998 (Utah Governor's Office of Planning and Budget, Demographic and Economic Analysis Section, Internet web site). In the three counties where the coal mining occurs, it projected that all types of mining would employ 2,417 persons (1,132 in Carbon County; 948 in Emery County; and 337 in Sevier County).

The climate of the Wasatch and Book Cliffs coal fields is characterized by hot, dry summers and cold, relatively moist winters. Normal precipitation varies from 6 inches in the lower valleys to more than 40 inches on some high plateaus. The growing season ranges from 5 months in some valleys to only 2 ½ months in mountainous regions. These extreme climatic conditions make reclamation a challenge.

III. Overview of the Public Participation Opportunities in the Oversight Process and Utah Program

A. Oversight Process

On April 21, 1999, the OSM/Utah oversight team participated in a Utah Division of Oil, Gas and Mining (DOGGM) stakeholder's meeting. Thirty-one persons attended this meeting, which served as a forum for interested public and private parties to learn about and provide input on DOGM activities for coal, oil and gas, and other mineral regulatory programs.

The team members described OSM's goals for all SMCRA State regulatory programs: implementation of citizen participation and other procedural requirements of the programs (customer satisfaction), prevention of offsite impacts at all mines, and successful, onsite reclamation at all mines. They identified the following topics that the team intended to review this evaluation year: development of memorandum of understanding between DOGM and the Utah Department of Environmental Quality on water quality violations at minesites (customer satisfaction), timeliness of permitting actions (customer satisfaction), surface effects due to subsidence (offsite impact prevention), highwall elimination and retention as a part of approximate original contour restoration (onsite reclamation success), and potential offsite

impacts from bond forfeiture sites (offsite impact prevention).

The team offered copies of the 1998 annual evaluation report to anyone who was interested in obtaining a paper copy and identified the location on the DOGM and OSM Internet homepages where an electronic copy of the report is accessible (respectively, <http://www.dogm.nr.state.ut.us> and <http://www.osmre.gov>).

The team did not receive any oral or written comments in response to its request for comments on the oversight process, recommendations for additional review topics, and suggestions for improvements for future annual evaluation reports.

B. Utah Program

In Castle Dale, Utah, on November 17, 1998, the Hydrology Outreach Committee held a Coal Country Forum on water rights that was attended by 60 persons from the general public, and Federal, State, and local agencies. The Committee describes itself as “a consortium of local, State and Federal government, consultants and industry representatives examining the interrelationships of water and mining, and promoting cooperation among water users.”

In St. George, Utah, on March 11 and 12, 1999, the Hydrology Outreach Committee had a booth at the Water User’s Conference. The Committee displayed information and answered questions on hydrology topics in the Emery County area.

In Price, Utah, on March 11, 1999, DOGM participated in the Utah Coal Conference for Government and Industry. About 120 persons from State and Federal agencies and the coal mining industry attended. Conference topics included abandoned machinery as potential hazardous substances and their effects in solid disposal sites, coal reserves, the effects on State and Federal coal leasing of the Bureau of Land Management’s and School and Institutional Trust Lands Administration’s land exchanges, mining-induced seismicity, and mining under perennial streams. The OSM Director spoke at the conference luncheon. On March 12, 1999, interested persons toured the Sunnyside Mine bond forfeiture site, which DOGM was actively reclaiming.

IV. Accomplishments, Issues, and Innovations

A. Accomplishments

In their review of three topics in evaluation year 1999, OSM and DOGM identified the following accomplishments. Because DOGM is successfully implementing the parts of its OSM-approved program relating to these topics, OSM and DOGM will not be further examining them in evaluation year 2000.

1. Utah Interagency Water Quality Agreement

As the result of their review of citizen complaints during evaluation year 1996, OSM and DOGM concluded that communication on water quality problems at coal mines could be improved between DOGM and the Utah Department of Environmental Quality (DEQ), the Utah Pollutant Discharge Elimination System permitting authority.

In evaluation year 1997, OSM and DOGM recommended that the October 16, 1990, memorandum of understanding (MOU) between DOGM and DEQ be revised to include provisions for DEQ to notify DOGM of violations of Utah Pollutant Discharge Elimination System permits and of the water quality standards at 40 CFR Part 434.

During evaluation year 1998, DOGM transmitted proposed MOU revisions to DEQ.

On September 1, 1999, the directors of DOGM and DEQ signed a revised MOU. In the revised MOU, the agencies have agreed to coordinate more closely in enforcing water quality standards on coal mines and to cooperate on other matters where they both have jurisdiction.

2. Timely Decisions on Permit Applications

DOGM engages in a variety of permitting activities (table 3).

As a measure of DOGM's effectiveness in providing customer service, OSM and DOGM analyzed how much time DOGM was taking to review and make decisions on major permit applications. Following is a table summarizing the results of this analysis.

Type of permit application	Number of permit applications for which DOGM made decision during evaluation period ¹	Regulatory time limit for DOGM to make decision on permit applications (days)	Time for DOGM to make decision on permit applications (days)	
			Average	Range
New permits	1	365	293	— ²
Significant permit revisions	2	120	37	27 - 47
Permit renewals	8	120	75	29 - 112
Permit amendments ¹	33	60	26	1 - 60

¹ With the exception of permit amendments, OSM and DOGM reviewed all permit decisions issued by DOGM during the evaluation period. They reviewed permit amendment decisions issued by DOGM during the 7-month period between October 1, 1998, and April 30, 1999.

² No range is shown, because DOGM issued only one new permit during the evaluation period.

In all instances, DOGM made the permit decisions within the required time periods, and on

average it made the decisions well in advance of the permit decision deadlines. In this respect, DOGM was effective in its serving its customers.

3. Prevention of Subsidence Offsite Impacts

As a part of their assessment of offsite impacts caused by coal mines in Utah, OSM and DOGM reviewed the effects of land surface subsidence above an underground mine. OSM and DOGM selected for review a mine (1) that used a variety of coal extraction methods (longwall, room-and-pillar with pillar extraction, and room-and-pillar without pillar extraction) and (2) that had a number of surface features whose uses should not be irreparably damaged (county road, inactive natural gas pipeline, streams, adjacent lake, and forestry and wildlife habitat postmining land uses).

OSM and DOGM did not find any evidence of subsidence (stress cracks, sinkholes, slope instability, and sheer failures) in areas outside those predicted for subsidence in the mine permit operation plan.

Also, OSM and DOGM did not see any indication of subsidence in the area predicted for the subsidence, although the mine permittee's subsidence monitoring data shows that the land surface subsided a maximum of 20 feet. This is within the range predicted by the permittee's computer software. The permittee indicated that it had filled with soil one 3-foot wide crack in this area. It also indicated that some small cracks had opened up in the county road surface and shoulder. Per an agreement made prior to mining, the county transportation department repaired the road and billed the permittee. There was no visible damage to the inactive natural gas pipeline because of the planned, uniform subsidence that occurred there. No known subsidence damage occurred to the streams, adjacent lake, and forestry and wildlife habitat postmining land uses.

OSM and DOGM concluded that DOGM's and the permittee's implementation of the Utah regulatory program requirements prevented irreparable offsite impacts due to subsidence.

B. Issues

In their evaluation of two topics, OSM and DOGM identified the following issues. OSM and DOGM will continue their evaluation of the following topic No. 1 in evaluation year 2000.

1. Highwall Elimination and Retention As a Part of Approximate Original Contour (AOC) Restoration

During evaluation year 1997, DOGM expended considerable effort to prepare a detailed inventory of the 97 highwalls in the State. The inventory serves as a useful compendium of information on reclamation requirements and plans for each of the highwalls. In using the highwalls inventory, OSM and DOGM identified deficiencies in highwall reclamation plans in

one-fifth of the mine permits.

In evaluation year 1998, DOGM developed a prioritized schedule for the permittees to submit proposed permit revisions to correct the deficiencies and for DOGM to review the proposals. The permit revision due dates ranged from August 1998 to February 2000. By letters dated March 3 and 5, 1998, DOGM notified each of the permittees of the permit revision submission deadlines.

For evaluation years 1999 and 2000, OSM and DOGM agreed that they would (1) track the permit revision submission dates and DOGM permit revisions review dates to determine whether the schedule was being adhered to and (2) to review the revised permits to verify that the permit deficiencies were being resolved in accordance with the requirements of the Utah regulatory program.

In some instances, DOGM has, for good cause, given the permittees additional time to submit the permit revision applications. Thus far DOGM has approved three of the permit revision applications. OSM and DOGM have not yet completed their review of DOGM's findings and decisions on them.

2. Permitting of Coal Mine Access and Haul Roads

On July 3, 1995, DOGM sent to OSM a letter which included policy statements on the permitting of public roads. OSM agreed with the policy clarification and terminated a proceeding under 30 CFR Part 733 to substitute Federal enforcement for that part of the State program concerning the permitting of coal mine access and haul roads.

In its policy letter, DOGM indicated that an access or haul road may not be required to be permitted if (1) it was properly acquired by the governmental entity (not deeded to avoid regulation), (2) it is maintained with public funds or in exchange for taxes or fees, (3) it was constructed in a manner similar to other public roads of the same classification, and (4) impacts from mining are not significant under the definition of "affected area" and "surface coal mining operations."

During evaluation year 1997, OSM and DOGM reviewed a permit that DOGM had issued during that year to determine whether DOGM was implementing its July 3, 1995, permitting policy. OSM and DOGM concluded that DOGM did not comply with the policy because, in deciding not to require a road to be permitted, DOGM did not make written findings on the last three criteria cited above.

In evaluation year 1998, DOGM wrote for this permit the findings for the three criteria. For another permit that it issued and another permit application that it was processing, DOGM wrote findings for all four criteria.

In evaluation year 1999, DOGM augmented its findings for the fourth criteria above by conducting surveys of vehicle use of selected roads.

In evaluation year 2000, OSM and the western States will participate in a workshop on permit findings. Utah and the other States will discuss the written analysis needed to support findings. The workshop is intended to result in an overall upgrading of permit findings.

C. Innovations

For the fourth consecutive year, persons from OSM and DOGM continued to work as a team to evaluate and assist DOGM in the administration, implementation, and maintenance of the approved Utah regulatory program. During the evaluation year, the team consisted of 12 program and permitting specialists, scientists, and managers from OSM and DOGM. At a “SMCRA in the 21st Century” workshop in August 1999, DOGM team members presented to an audience of State and OSM employees a videotape that described the innovative team approach that OSM and DOGM are taking to conduct program evaluations in Utah.

DOGM developed a computerized water quantity and quality database, which is accessible on the Internet at <http://hlunix.hl.state.ut.us/cgi-bin/appx-ogm.cgi> to anyone who has an interest in the data for a specific mine. Targeted users include such groups as concerned citizens, mine permittees, State and Federal agencies, DOGM staff, and OSM. In evaluation year 1998, DOGM entered mine permittee data into the system. In evaluation year 1999, a permittee took the opportunity to directly enter ground and surface water data into the system.

DOGM is developing an electronic permitting system that will allow mine permittees to electronically retrieve formats for permit applications, to submit permit applications, and to access permit application and permit information such as DOGM technical analyses, probable hydrologic consequences analyses, and cumulative hydrologic impact assessments. As a part of the aforementioned Utah Coal Conference for Government and Industry held on March 11, 1999, DOGM gave an electronic permitting demonstration to industry and governmental representatives.

DOGM developed a computerized database, called the Coal Tracking System, to record its progress in reviewing permit applications (new permits, amendments, significant revisions, midterm reviews, renewals, and bond releases). This system is a project management tool that is intended to keep DOGM timely in making permit decisions. It allows DOGM managers to track the workload of permit application reviewers and to shift workload as necessary to meet required permit application review time periods. It also serves as a historical archive of all completed permitting actions.

V. Success in Achieving the Purposes of SMCRA As Determined By Measuring and Reporting End Results

To further the concept of reporting end results and measuring Utah’s success in achieving the purposes of SMCRA, OSM and DOGM conducted evaluations whose purpose was to measure the number and extent of offsite impacts, the percentage of inspectable units free of offsite impacts, the number of acres that have been mined and reclaimed and meet the bond release requirements for the various phases of reclamation, and DOGM’s effectiveness of customer service. Individual topic reports, which provide additional details on how OSM and DOGM conducted the evaluations and took the measurements, are available in the OSM Denver Field Division office.

A. Offsite Impacts

An “offsite impact” is anything resulting from a surface coal mining and reclamation activity or operation that causes a negative effect on resources (people, land, water, structures) outside the area authorized by the permit for conducting mining and reclamation activities.

Table 4 shows the number and type of offsite impacts that OSM and DOGM documented as having occurred during the evaluation year.

1. Sites Where DOGM Had Not Forfeited Reclamation Performance Bonds

OSM and DOGM assessed whether offsite impacts had occurred on each of the 29 inspectable units for which DOGM had not forfeited reclamation performance bonds. They did so through the following 321 on-the-ground observations: 4 OSM and DOGM joint, complete inspections; 111 DOGM complete inspections; 205 DOGM partial inspections; and 1 OSM and DOGM minesite evaluation on subsidence (discussed in preceding section IV.A.3).

OSM and DOGM found one incident where a mine caused an offsite impact - a minor impact to land resources (table 4, top half). An operator underground mined some Federal coal outside an approved permit area. OSM and DOGM did not observe any offsite impacts on the land surface.

Taking into consideration the one offsite impact, 96 percent of the permitted operations (28 of 29 permitted operations) were free of offsite impacts. This is a higher percentage than evaluation years 1998 and 1997 when OSM and DOGM found that respectively 82 and 87 percent of the permitted operations (23 of 28, and 26 of 30 permitted operations) were free of offsite impacts.

The low percentage of observed offsite impacts is an indication that Utah is effective at nonforfeiture minesites in preventing offsite impacts to water, people, land, and man-made structures.

2. Sites Where DOGM Had Forfeited Reclamation Performance Bonds.

Since 1981 when OSM approved the Utah permanent regulatory program, DOGM has forfeited reclamation performance bonds for five mines. Of the five bond forfeiture sites, three had been

entirely reclaimed in previous years, one was being actively reclaimed during the minesite evaluation, and one was unreclaimed and in the reclamation planning stage. OSM and DOGM toured each of these minesites and determined whether they were causing adverse impacts to adjacent unmined areas.

OSM and DOGM found one incident where a mine caused an offsite impact - a minor impact to water resources (table 4, bottom half). It occurred at the Sunnyside Mine that was being actively reclaimed. DOGM had expected the observed impact to water resources owing to a relocation of a perennial stream channel. This impact was minor in effect and short-term in duration. Long-term beneficial impacts of the stream relocation are discussed in following section V.B.2.

Taking into consideration the one offsite impact, 80 percent of the bond forfeiture sites (4 of 5 bond forfeiture sites) were free of offsite impacts. No comparison with previous years' data can be made since this was the first year that OSM and DOGM evaluated offsite impacts at bond forfeiture sites.

The low percentage of observed offsite impacts is an indication that Utah is effective at forfeiture minesites in preventing offsite impacts to water, people, land, and man-made structures

For the following reasons, OSM and DOGM do not anticipate that offsite impacts from bond forfeiture sites will become an issue of concern in the foreseeable future. There are no ongoing administrative proceedings to forfeit bonds for additional mines. Four of the five bond forfeiture minesites have now been entirely reclaimed. DOGM plans to reclaim the remaining site in evaluation year 2000. Four of the five minesites have minimal surface disturbances (a total of 33.6 acres, an average of 8.4 acres per minesite), which reduces the possibilities for future offsite impacts there.

On minesites where bonds are not forfeited, there is a well-defined bond release process in Utah's statute and rules for DOGM to follow in ending its jurisdiction on these sites (i.e., final phase III bond release). There is no similar, defined process for DOGM to follow in terminating its jurisdiction on bond forfeiture sites. As it nears completion of reclamation on all five bond forfeiture sites, DOGM is taking the initiative to develop written termination of jurisdiction policy for bond forfeiture sites.

B. Reclamation Success

1. Sites Where DOGM Had Not Forfeited Reclamation Performance Bonds

For sites where DOGM had not forfeited reclamation performance bonds prior to or during evaluation year 1999, OSM and DOGM used as the measure of reclamation success the disturbed acreage that had received bond release. Historically, the amount of bond release acreage in Utah has been very low due to the following two factors.

- C Of Utah's 29 permitted operations, 24 are underground mines (table 2). Most of these underground mining operations are long-lived, and the surface disturbances for them are relatively small and remain active during the entire life of the mining operations because of their continued use as surface facilities.
- C The 10-year minimum bond liability period and extreme climatic conditions make revegetation difficult.

Table 5 shows the acreage on active or inactive permits where DOGM partially released (phases I and II) or totally released (phase III) bonds during the evaluation year. For the 2,529 acres of total disturbance that had not yet received final (phase III) bond release at the beginning of the evaluation year, DOGM did not receive from the mine permittees any applications for phase I, II, or III bond releases. Consequently, DOGM did not grant any bond releases during the evaluation year.

In an effort to get a better understanding of how much acreage is reclaimed and may be eligible for bond release, OSM and DOGM compiled mine reclamation status information for all mines and facilities (coal loadouts and preparation plants) that DOGM has permitted under the Utah permanent regulatory program in the 18 years since OSM approved the program. Table 6 shows in detail the status of reclamation for all 29 active and inactive operations, 4 of the 5 mines for which DOGM forfeited the reclamation performance bonds, and 2 mines for which DOGM previously released all phase III bonds. (Not shown in the table is one of the bond forfeiture sites. DOGM permitted the site for exploration but never permitted it for fully developed, active mining under the Utah permanent regulatory program.) After reviewing the data in table 6, OSM and DOGM conclude that there is little disturbed acreage that has received reclamation work and that may be eligible for phase I, II, and III bond release.

In addition to the above analysis of bond release acreage, OSM and DOGM, as described in section IV.B.1, also assessed reclamation success in its evaluation of highwall reclamation. As described there, approximately one-fifth of the permits had reclamation plan deficiencies concerning highwall reclamation. Until all of the permittees revise their permits to resolve these deficiencies, OSM and DOGM will not be able to fully assess the degree of success of highwall reclamation in the State.

2. Sites Where DOGM Had Forfeited Reclamation Performance Bonds.

DOGM had forfeited bonds for two mines prior to the beginning of evaluation year 1999 (table 7).

During evaluation year 1999, DOGM reclaimed the 287-acre Sunnyside underground minesite, which had 48 mine portals and 8 mine shafts. During reclamation, DOGM relocated portions of Grassy Trail Creek, which was undercutting a county road, and otherwise improved the stream channel with native vegetation plantings. The postmining land use of the reclaimed land will be

grazing and wildlife habitat, including critical elk winter range. Final reclamation of this minesite is a significant accomplishment because it brings to a close environmental degradation that started over 100 years ago when the original mine was opened.

DOGGM is planning to reclaim the 5-acre Blazon Mine site in evaluation year 2000. This is the last remaining site where DOGGM had forfeited reclamation performance bonds.

C. Customer Service

As discussed in section IV.A.1, OSM and DOGGM found as a result of their citizen complaint evaluations that a water quality MOU between DOGGM and Utah DEQ did not promote effective communication on water quality enforcement. Ultimately, this ineffective communication could have led to disservice of two of DOGGM's primary customers: citizens who may be affected by water quality noncompliances and mining companies that are responsible for resolving noncompliances. DOGGM and DEQ signed a revised MOU that should have positive impacts for these customers.

As discussed in section IV.A.2, OSM and DOGGM found that DOGGM was effective in serving its customers to the extent that it made permit decisions within the time periods required by its rules.

VI. OSM Assistance

For the 1-year grant period starting July 1, 1999, OSM funded the Utah program in the amount of \$1.47 million (table 9). Through a Federal lands cooperative agreement, OSM reimburses DOGGM for permitting, inspection, and other activities (table 8) that it performs for mines on Federal lands. Because most of the mines in Utah occur on Federal lands, the percentage of total program costs for which OSM provided funding was high (86.5 percent, table 9).

In evaluation years 1997 and 1998, OSM supported the development of the water quantity and quality database and the electronic permitting system that are discussed in section IV.C. It did so by providing \$22,131 to DOGGM for computer hardware and software. In evaluation year 1999, OSM conveyed an additional \$6,020 to DOGGM for the electronic permitting system project.

Under its Technical Training, Technical Information Processing System, and Technology Transfer Programs, OSM offers free of charge a variety of courses, workshops, and forums to State and Tribal employees. As described below, 19 DOGGM employees participated in these activities during the evaluation year.

DOGGM employees attended the following Technical Training Program courses and workshops: Applied Engineering Principles, Bonding Workshop - Administrative and Legal Aspects, Effective Writing, Enforcement Procedures, Enforcement Tools and Applications, Erosion and Sediment Control, Evidence, Expert Witness, Instructor Training Course, Permitting Hydrology, SMCRA in the 21st Century, Surface and Groundwater Hydrology, Underground Mining

Technology, and Wetlands Awareness. DOGM employees assisted in the teaching of the following Technical Training Program courses and workshops: Bonding Workshop - Administrative and Legal Aspects, Evidence, SMCRA in the 21st Century, and Wetlands Awareness.

DOGM employees attended the following Technical Information Processing System courses: Introduction to ArcView and Introduction to Global Positioning System.

DOGM employees attended the following Technology Transfer Program workshops and forum: Bond Release Interactive Forum on Revegetation Issues, Regression Analysis Workshop, and Statistical Sampling for Baseline Studies Workshop.

VII. Oversight Topic Reviews

In the time period from October 1, 1998, through September 30, 1999, OSM and DOGM evaluated the following topics: interagency water quality MOU, timeliness of permit application decisions, prevention of subsidence offsite impacts, and highwall elimination and retention as a part of AOC restoration. Written reports for all of these topics are available for review in the OSM Denver Field Division office.

Appendix. Tabular Summary of Core Data Characterizing the Utah Program

The following tables present data pertinent to mining operations and State and Federal regulatory activities within Utah. They also summarize Utah staffing and OSM funding. Unless otherwise specified, the reporting period for the data contained in all tables is October 1, 1998, to September 30, 1999.

TABLE 1

COAL PRODUCTION^A (Millions of short tons)			
Period	Surface mines	Underground mines	Total
1995	0.43	25.73	26.16
1996	0.85	28.09	28.94
1997	0.61	25.79	26.40
1998	0.54	26.95	27.49

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

TABLE 2

**INSPECTABLE UNITS
As of September 30, 1999**

Coal mines and related facilities	Number and status of permits								Insp. Unit	Disturbed acreage ^A			
	Active or temporarily inactive		Inactive		Abandoned		Totals			IP	PP	Total	
	IP	PP	Phase II bond release		IP	PP	IP	PP					
			IP	PP						IP	PP		
STATE and PRIVATE LANDS^B REGULATORY AUTHORITY: UTAH													
Surface mines	-	1	-	-	-	-	-	1	-	-	202	202	
Underground mines	-	4	-	1	-	-	-	5	-	-	86	86	
Other facilities	-	2	-	-	-	-	-	2	-	-	516	516	
Subtotals	-	7	-	1	-	-	-	8	-	-	804	804	
FEDERAL LANDS^C REGULATORY AUTHORITY: UTAH													
Surface mines	-	-	-	-	-	-	-	-	-	-	-	-	
Underground mines	-	19	-	-	-	-	-	19	-	-	1464	1464	
Other facilities	-	2	-	-	-	-	-	2	-	-	81	81	
Subtotals	-	21	-	-	-	-	-	21	-	-	1545	1545	
ALL LANDS													
Surface mines	-	1	-	-	-	-	-	1	-	-	202	202	
Underground mines	-	23	-	1	-	-	-	24	-	-	1550	1550	
Other facilities	-	4	-	-	-	-	-	4	-	-	597	597	
Totals	-	28	-	1	-	-	-	29	-	-	2349	2349	
Average number of permits per inspectable unit (excluding exploration sites)											<u>1</u>		
Average number of acres per inspectable unit (excluding exploration sites)											<u>81</u>		
Number of exploration permits on State and private lands:											<u>4</u>	On Federal lands: <u>0</u>	^D
Number of exploration notices on State and private lands:											<u>0</u>	On Federal lands: <u>2</u>	^D
<p>P: initial regulatory program sites; PP: permanent regulatory program sites.</p> <p>^A Almost all of the operations are underground mines. The table shows disturbed, rather than permitted, acreage because disturbed acreage is a more meaningful measure for underground mines. The permitted acreage total was 113,310.</p> <p>^B Mines or facilities where entire disturbed area occurs on State and/or private lands.</p> <p>^C Mines or facilities where at least a portion of the disturbed area occurs on Federal lands.</p> <p>^D Includes only exploration activities regulated by Utah pursuant to the Federal lands cooperative agreement with OSM. Does not include exploration activities regulated by the Bureau of Land Management.</p>													

TABLE 3

**UTAH PERMITTING ACTIVITY
As of September 30, 1999**

Type of application	Surface mines			Underground mines			Other facilities			Totals		
	App. Rec.	Issued	Acres	App. Rec.	Issued	Acres ^A	App. Rec.	Issued	Acres	App. Rec.	Issued	Acres
New permits					1	29					1	29
Renewals				9	8	1140				9	8	1140
Amendments ^B				2	2	37				2	2	37
Incidental boundary revisions					1	214					1	214
Revisions (exclusive of incidental boundary revisions)				55	48		7	4		62	52	
Transfers, sales and assignments of permit rights				3	3					3	3	
Small operator assistance												
Exploration permits				4	3					4	3	
Exploration notices ^C				2						2		
Totals				75	66	1420	7	4		82	70	1420

Number of midterm permit reviews completed that are not reported as revisions 6

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

^B Under the Utah program, "significant permit revisions" are made when there is an increase in the approved permit size of the surface or subsurface disturbed area in amount of 15 percent or greater. "Amendments" shown in this table are the "significant permit revisions" that Utah processed.

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

TABLE 4

OFFSITE IMPACTS ON SITES WHERE BONDS HAVE <u>NOT</u> BEEN FORFEITED														
DEGREE OF IMPACT		RESOURCES AFFECTED											Total	
		People			Land			Water			Structures			
		minor	moderate	major	minor	moderate	major	minor	moderate	major	minor	moderate		major
TYPE OF IMPACT	Blasting													
	Land Stability													
	Hydrology													
	Encroachment													
	Other				1									
	Total				1									1
Number of inspectable units: <u>29</u> Inspectable units free of offsite impacts: <u>28</u>														
Percentage of inspectable units free of offsite impacts: <u>96</u>														
OFFSITE IMPACTS ON SITES WHERE BONDS HAVE BEEN FORFEITED														
DEGREE OF IMPACT		RESOURCES AFFECTED											Total	
		People			Land			Water			Structures			
		minor	moderate	major	minor	moderate	major	minor	moderate	major	minor	moderate		major
TYPE OF IMPACT	Blasting													
	Land Stability													
	Hydrology							1						1
	Encroachment													
	Other													
	Total								1					
Number of inspectable units: <u>5</u> Inspectable units free of offsite impacts: <u>4</u>														
Percentage of inspectable units free of offsite impacts: <u>80</u>														

TABLE 5

ANNUAL STATE MINING AND RECLAMATION RESULTS		
Bond release phase	Applicable performance standard	Acreage released during this evaluation period
Phase I	<ul style="list-style-type: none"> ● Approximate original contour restored 	0 ^A
Phase II	<ul style="list-style-type: none"> ● Topsoil or approved alternative replaced ● Surface stabilized ● Vegetation established 	0 ^A
Phase III	<ul style="list-style-type: none"> ● Postmining land use/productivity restored ● Vegetation successfully and permanently established ● Groundwater recharge, quality, and quantity restored ● Surface water quality and quantity restored 	0 ^A
Bonded acreage status		Acres
Total number of bonded acres at end of last evaluation year (September 30, 1998) ^B		2529
Total number of bonded acres at the end of this evaluation year (September 30, 1999) ^B		2349
Number of acres at the end of this evaluation year that are bonded for re-mining		0.00
Number of acres where bond was forfeited during this evaluation year		0.00
<p>^A Throughout the history of the Utah permanent regulatory program, the acreage receiving bond release has been low owing to (1) most of the operations being long-lived underground mines with relatively small surface disturbances that remain active during the entire life of the mining operations and (2) a 10-year minimum bond liability period and extreme climatic conditions that make revegetation difficult.</p> <p>^B Bonded acreage in this category is disturbed acreage that had not received a phase III bond release.</p>		

Table 6

RECLAMATION STATUS OF ALL AREAS DISTURBED UNDER THE UTAH PERMANENT REGULATORY PROGRAM^A

(Acres)

As of September 30, 1999

Permittee, mine name, and permit number	Mine type		Disturbed area		Long-term mining or reclamation facilities ^B	Active mining areas (pits and areas in advance of the pits stripped of topsoil) and areas not yet backfilled and graded ^A	Areas backfilled and graded		Areas where Utah has released phase I bond		Areas soiled and seeded/planted		Areas where Utah has released phase II bond		Areas final seeded/planted for 10 years		Areas where Utah has released phase III bond	
	Surface	Under-ground	EY 1999	Total (all years)			EY 1999	Total (all years)	EY 1999	Total (all years)	EY 1999	Total (all years)	EY 1999	Total (all years)	EY 1999	Total (all years)	EY 1999	Total (all years)
Active, temporarily inactive, inactive, and abandoned sites.																		
Lodestar Energy, Inc. White Oak #1 and #2/Loadout ACT/007/001	(loadout)	X		140.2	140.2													
Castle Gate Holding Company Castle Gate Mine ACT/007/004		X		71.5				18.2 (Sow-belly Canyon)		18.2 (Sowbell y Canyon)		18.2						
Canyon Fuel Company, LLC Skyline Mine ACT/007/005		X		72.32	72.32													

RECLAMATION STATUS OF ALL AREAS DISTURBED UNDER THE UTAH PERMANENT REGULATORY PROGRAM^A

(Acres)

As of September 30, 1999

Permittee, mine name, and permit number	Mine type		Disturbed area		Long-term mining or reclamation facilities ^B	Active mining areas (pits and areas in advance of the pits stripped of topsoil) and areas not yet backfilled and graded ^A	Areas backfilled and graded		Areas where Utah has released phase I bond		Areas soiled and seeded/planted		Areas where Utah has released phase II bond		Areas final seeded/planted for 10 years		Areas where Utah has released phase III bond	
	Surface	Under-ground	EY 1999	Total (all years)			EY 1999	Total (all years)	EY 1999	Total (all years)	EY 1999	Total (all years)	EY 1999	Total (all years)	EY 1999	Total (all years)	EY 1999	Total (all years)
Plateau Mining Corporation Star Point Mine ACT/007/006		X		173.2	173.2													
Hiawatha Coal Company Hiawatha Mine ACT/007/011		X		290	290													
Nevada Electric Investment Company Wellington Preparation Plant ACT/007/012	(preparation plant)			356	356													
UtahAmerican Energy, Inc. Horse Canyon Mine ACT/007/013		X		87	87			61.65	61.65			61.65						

RECLAMATION STATUS OF ALL AREAS DISTURBED UNDER THE UTAH PERMANENT REGULATORY PROGRAM^A

(Acres)

As of September 30, 1999

Permittee, mine name, and permit number	Mine type		Disturbed area		Long-term mining or reclamation facilities ^B	Active mining areas (pits and areas in advance of the pits stripped of topsoil) and areas not yet backfilled and graded ^A	Areas backfilled and graded		Areas where Utah has released phase I bond		Areas soiled and seeded/planted		Areas where Utah has released phase II bond		Areas final seeded/planted for 10 years		Areas where Utah has released phase III bond	
	Surface	Under-ground	EY 1999	Total (all years)			EY 1999	Total (all years)	EY 1999	Total (all years)	EY 1999	Total (all years)	EY 1999	Total (all years)	EY 1999	Total (all years)	EY 1999	Total (all years)
Mountain Coal Company Gordon Creek #2, #7, and #8 ACT/007/016		X		17.58	17.58		17.58											
Canyon Fuel Company, LLC Soldier Canyon Mine ACT/007/018		X		24	24													
Andalex Resources, Inc. Centennial Mine ACT/007/019		X		34.2	34.2													
Lodestar Energy, Inc. Horizon Mine ACT/007/020		X		9.5	9.5													

RECLAMATION STATUS OF ALL AREAS DISTURBED UNDER THE UTAH PERMANENT REGULATORY PROGRAM^A

(Acres)

As of September 30, 1999

Permittee, mine name, and permit number	Mine type		Disturbed area		Long-term mining or reclamation facilities ^B	Active mining areas (pits and areas in advance of the pits stripped of topsoil) and areas not yet backfilled and graded ^A	Areas backfilled and graded		Areas where Utah has released phase I bond		Areas soiled and seeded/planted		Areas where Utah has released phase II bond		Areas final seeded/planted for 10 years		Areas where Utah has released phase III bond		
	Surface	Under-ground	EY 1999	Total (all years)			EY 1999	Total (all years)	EY 1999	Total (all years)	EY 1999	Total (all years)	EY 1999	Total (all years)	EY 1999	Total (all years)	EY 1999	Total (all years)	EY 1999
Savage Industries, Inc. Savage Coal Terminal ACT/007/022	(preparation plant and loadout)			160	160														
Andalex Resources, Inc. Wildcat Loadout ACT/007/033	(preparation plant and loadout)			60	60														
Canyon Fuel Company, LLC Banning Loadout ACT/007/034	(preparation plant and loadout)			21	21														
Sunnyside Cogeneration Associates (SCA) SCA ACT/007/035	X			202	202				5.5 (coarse refuse road)										

RECLAMATION STATUS OF ALL AREAS DISTURBED UNDER THE UTAH PERMANENT REGULATORY PROGRAM^A

(Acres)

As of September 30, 1999

Permittee, mine name, and permit number	Mine type		Disturbed area		Long-term mining or reclamation facilities ^B	Active mining areas (pits and areas in advance of the pits stripped of topsoil) and areas not yet backfilled and graded ^A	Areas backfilled and graded		Areas where Utah has released phase I bond		Areas soiled and seeded/planted		Areas where Utah has released phase II bond		Areas final seeded/planted for 10 years		Areas where Utah has released phase III bond	
	Surface	Under-ground	EY 1999	Total (all years)			EY 1999	Total (all years)	EY 1999	Total (all years)	EY 1999	Total (all years)	EY 1999	Total (all years)	EY 1999	Total (all years)	EY 1999	Total (all years)
Plateau Mining Corporation Willow Creek Mine ACT/007/038		X		132.9	132.9													
Canyon Fuel Company, LLC Dugout Mine ACT/007/039		X	10.1	20.1	20.1													
West Ridge Resources, Inc. West Ridge Mine ACT/007/041		X	29	29	29													
Western States Minerals Corp. J.B. King Mine ACT/015/002		X		28	28			28	28			28	28					

RECLAMATION STATUS OF ALL AREAS DISTURBED UNDER THE UTAH PERMANENT REGULATORY PROGRAM^A

(Acres)

As of September 30, 1999

Permittee, mine name, and permit number	Mine type		Disturbed area		Long-term mining or reclamation facilities ^B	Active mining areas (pits and areas in advance of the pits stripped of topsoil) and areas not yet backfilled and graded ^A	Areas backfilled and graded		Areas where Utah has released phase I bond		Areas soiled and seeded/planted		Areas where Utah has released phase II bond		Areas final seeded/planted for 10 years		Areas where Utah has released phase III bond		
	Surface	Under-ground	EY 1999	Total (all years)			EY 1999	Total (all years)	EY 1999	Total (all years)	EY 1999	Total (all years)	EY 1999	Total (all years)	EY 1999	Total (all years)	EY 1999	Total (all years)	EY 1999
Consolidation Coal Company Hidden Valley Mine ACT/015/007		X		6.7	6.7		6.7		6.7		6.7								
PacifiCorp Trail Mountain Mine ACT/015/009		X		24.78	24.78														
Consolidation Coal Company Emery Deep Mine ACT/015/015		X		40 ^C	40 ^C														
PacifiCorp Des-Bee-Dove Mine ACT/015/017		X		28 ^D	28														

RECLAMATION STATUS OF ALL AREAS DISTURBED UNDER THE UTAH PERMANENT REGULATORY PROGRAM^A

(Acres)

As of September 30, 1999

Permittee, mine name, and permit number	Mine type		Disturbed area		Long-term mining or reclamation facilities ^B	Active mining areas (pits and areas in advance of the pits stripped of topsoil) and areas not yet backfilled and graded ^A	Areas backfilled and graded		Areas where Utah has released phase I bond		Areas soiled and seeded/planted		Areas where Utah has released phase II bond		Areas final seeded/planted for 10 years		Areas where Utah has released phase III bond	
	Surface	Under-ground	EY 1999	Total (all years)			EY 1999	Total (all years)	EY 1999	Total (all years)	EY 1999	Total (all years)	EY 1999	Total (all years)	EY 1999	Total (all years)	EY 1999	Total (all years)
PacifiCorp Deer Creek Mine ACT/015/018		X		95.8	95.8													
PacifiCorp Cottonwood/Wilberg Mine ACT/015/019		X		101.74	101.74													.01 ^E
Co-Op Mining Company Trail Canyon Mine ACT/015/021		X		10			10		10		10		10		10		10	
Co-Op Mining Company Bear Canyon Mine ACT/015/025		X		24	24													
Genwal Resources, Inc. Crandall Canyon ACT/015032		X		20	20													

RECLAMATION STATUS OF ALL AREAS DISTURBED UNDER THE UTAH PERMANENT REGULATORY PROGRAM^A

(Acres)

As of September 30, 1999

Permittee, mine name, and permit number	Mine type		Disturbed area		Long-term mining or reclamation facilities ^B	Active mining areas (pits and areas in advance of the pits stripped of topsoil) and areas not yet backfilled and graded ^A	Areas backfilled and graded		Areas where Utah has released phase I bond		Areas soiled and seeded/planted		Areas where Utah has released phase II bond		Areas final seeded/planted for 10 years		Areas where Utah has released phase III bond	
	Surface	Under-ground	EY 1999	Total (all years)			EY 1999	Total (all years)	EY 1999	Total (all years)	EY 1999	Total (all years)	EY 1999	Total (all years)	EY 1999	Total (all years)	EY 1999	Total (all years)
Canyon Fuel Company, LLC SUFCO Mine ACT/041/002		X	.28	69.98	69.98													
Sites receiving full release of reclamation performance bonds.^F																		
Blackhawk Coal Company Willow Creek Mine ACT/007/002		X		4.2						.6 ^G				.6 ^G				4.2 ^G
Mountain Coal Company Gordon Creek #3 and #6 ACT/007/017		X		17.3				17.3	17.3		17.3		17.3		17.3		17.3	17.3
Mountain Coal Company Huntington #4 Mine ACT/015/004		X		12.5				12.5	12.5		12.5		12.5		12.5		12.5	12.5

RECLAMATION STATUS OF ALL AREAS DISTURBED UNDER THE UTAH PERMANENT REGULATORY PROGRAM^A

(Acres)

As of September 30, 1999

Permittee, mine name, and permit number	Mine type		Disturbed area		Long-term mining or reclamation facilities ^B	Active mining areas (pits and areas in advance of the pits stripped of topsoil) and areas not yet backfilled and graded ^A	Areas backfilled and graded		Areas where Utah has released phase I bond		Areas soiled and seeded/planted		Areas where Utah has released phase II bond		Areas final seeded/planted for 10 years		Areas where Utah has released phase III bond		
	Surface	Under-ground	EY 1999	Total (all years)			EY 1999	Total (all years)	EY 1999	Total (all years)	EY 1999	Total (all years)	EY 1999	Total (all years)	EY 1999	Total (all years)	EY 1999	Total (all years)	EY 1999
Bond forfeiture sites.																			
Sunnyside Coal Company Sunnyside Mine FOR/007/007		X		287.4				287.4											
North American Equities Blazon Mine FOR/007/021		X		4.65				4.65		4.65 ^I									
Summit Minerals Summit #1 FOR/043/001		X		19				19 ^J				19 ^J							
Summit Coal Company Boyer Mine FOR/043/008		X		7				7 ^K				7 ^K							
Total	5	30	39.38	2697.35	2268			489.98		164.5		467.75		39.8		39.8	17.3	29.9	

^A Blanks in the table denote zeros.

^B Long-term mining or reclamation facilities include haul and access roads; temporary dams and impoundments; permanent dams and impoundments; diversion and collector ditches; water and air monitoring sites; topsoil stockpiles; overburden stockpiles; repair, storage, and construction areas; coal stockpile, loading, and processing areas; railroads; coal conveyors; refuse piles and coal mine waste impoundments; head-of-hollow fills; valley fills; ventilation shafts and entryways; and noncoal waste disposal areas (garbage dumps and coal combustion by-products disposal areas).

^C The mine is in temporary cessation, and the permittee estimated 40 acres of actual disturbance to date. In the permit application package, the permittee has bonded a total of 247 acres for proposed disturbance.

^D Not included in this disturbed acreage total are 93.18 disturbed acres in an access road that was removed from the permit area through the bond release process.

^E Channel Canyon portal breakout reclamation; no phase I and II bond release prior to phase III bond release.

^F Not shown in the table is the New-Tech Mining Corporation, New-Tech Mine, which disturbed 3 acres. DOGM permitted the site for exploration but never permitted it for fully developed, active mining under the Utah permanent regulatory program.

^G No phase I and II bond release prior to phase III bond release.

^H Utah forfeited the bond on November 22, 1996. A Utah-hired contractor completed reclamation in July 1999.

^I Utah forfeited the bond on May 24, 1991. Utah has not yet begun any bond forfeiture reclamation.

^J Utah forfeited the bond on January 26, 1989. A Utah-hired contractor completed reclamation on November 20, 1997.

^K Utah forfeited the bond on June 23, 1989. A Utah-hired contractor completed reclamation on April 17, 1997.

TABLE 7

STATE BOND FORFEITURE ACTIVITY (Permanent Program Permits)			
	Sites	Dollars	Acres
Bonds forfeited as of September 30, 1998 ^A	2	1,888,184	292.05 ^B
Bonds forfeited during EY 1999	0		
Forfeited bonds collected as September 30, 1998 ^A	2	1,888,184	292.05 ^B
Forfeited bonds collected during EY 1999	0		
Forfeiture sites reclaimed during EY 1999	1	1,850,184 ^C	287.4 ^B
Forfeiture sites repermited during EY 1999	0		
Forfeiture sites unreclaimed as of September 30, 1999	1		4.65 ^B
Excess reclamation costs recovered from permittee	0		
Excess forfeiture proceeds returned to permittee	0		
^A Includes data only for those forfeiture sites not fully reclaimed as of this date. ^B Disturbed acres. ^C Cost of reclamation, excluding general administrative expenses.			

TABLE 8

UTAH STAFFING (Full-time equivalents at end of evaluation year)	
Function	EY 1999
Regulatory Program	
Permit review	15.0
Inspection	6.0
Other (administrative, fiscal, personnel, etc.)	3.0
Total	24.0

TABLE 9

FUNDS GRANTED TO UTAH BY OSM (Millions of dollars) EY 1999		
Type of grant	Federal funds awarded	Federal funding as a percentage of total program costs
Administration and enforcement	1.47	86.5
Small operator assistance	0.00	0.0
Total	1.47	