

**OFFICE OF SURFACE MINING
RECLAMATION AND ENFORCEMENT**

Annual Evaluation Summary Report

for the

Regulatory Program

Administered by the State

of

Utah

for

Evaluation Year 2000

(October 1, 1999, through September 30, 2000)

December 2000

UTAH REGULATORY PROGRAM EVALUATION YEAR 2000

CORE TEAM AND COACHES



Pictured left to right.

Front row: Dennis Winterringer, Office of Surface Mining (OSM), team co-leader; Mary Ann Wright, Utah Division of Oil, Gas and Mining (DOGGM), team coach; and Pamela Grubaugh-Littig, DOGGM, team co-leader.

Back row: Joseph Wilcox, OSM; Daron Haddock, DOGGM; Randall Harden, DOGGM; James Fulton, OSM, team coach; and Mark Mesch, DOGGM, team coach.

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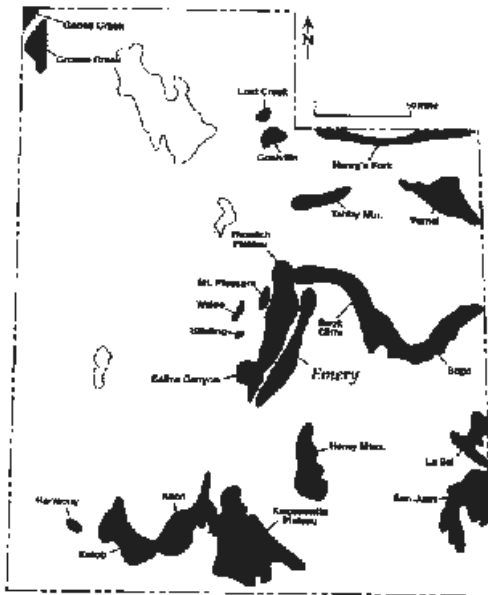
I. Introduction

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 administration 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, 1999, through September 30, 2000. 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 1999 and 2000, only the Wasatch Plateau and Book Cliffs coal fields were



being actively mined. In 1999, these coal fields respectively accounted for 89 and 11 percent of the total production (Utah Department of Natural Resources, Office of Energy and Resource Planning, "1999 Annual Review and Forecast of Utah Coal Production and Distribution", July 2000; <http://www.nr.state.ut.us/energy/home.htm>).

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 1999 was approximately 26.6 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.

As of September 30, 2000, Utah had 28 permitted operations that had disturbed 2,300 acres (table 2). Utah considered each of these operations to be an inspectable unit. Of these 28 operations, 27

were active or temporarily inactive, 1 was inactive, and none were abandoned (table 2). Of the 27 active or temporarily inactive operations, 10 were underground mines that use the longwall mining method, 12 were underground mines that use the room-and-pillar mining method, 1 was a surface mining operation extracting coal from an underground mine refuse pile, and 4 were coal preparation plants/loadout facilities.

Utah's coal mining industry has a significant impact on the local economies where mining occurs. In 1999, the industry employed 1,843 miners (Utah Department of Natural Resources, Office of Energy and Resource Planning, "1999 Annual Review and Forecast of Utah Coal Production and Distribution", July 2000). In 1999 in Carbon, Emery, and Sevier Counties where mining currently occurs, mining employment respectively declined 12.6, 4.5, and 2.1 percent, mainly due to losses of coal mining jobs (Utah Department of Workforce Services, "Labor Market Information", October 25, 2000; <http://wi.dws.state.ut.us/Regions/eastern.htm>).

The climate of the Wasatch Plateau 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.

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

A. Evaluation Process

On May 24, 2000, in Castle Dale, Utah, the OSM and DOGM co-leaders of the OSM/Utah evaluation team gave a presentation at the meeting of the Utah Board of Oil, Gas and Mining. In addition to the 6 Board members, about 25 people were in attendance.

The purpose of the presentation was to brief the Board on the team's report for evaluation year 1999 (October 1, 1998, through September 30, 1999) and to give the Board and the public an opportunity to provide input into the evaluation year 2000 process.

The team co-leaders described two of OSM's goals for all SMCRA State regulatory programs: prevention of offsite impacts at all mines and successful, onsite reclamation at all mines. With respect to offsite impacts prevention, they explained that the team had found that 96 percent of the mines were free of offsite impacts in evaluation year 1999. With respect to successful, onsite reclamation, they explained that no mines had received a phase I, II, or III bond release during evaluation year 1999 but that the Division of Oil, Gas and Mining (DOGM) had completed bond forfeiture reclamation on the 287-acre Sunnyside Mine.

The team co-leaders also identified the following topics that the team was reviewing in evaluation year 2000: coal refuse pile reclamation (reclamation success), operations under temporary cessation (reclamation success and offsite impacts), highwall elimination and retention as a part of approximate original contour restoration (reclamation success), and permit findings (a DOGM self-evaluation).

The team co-leaders offered copies of the 1999 annual evaluation report to anyone who was interested in obtaining a paper copy and identified the location on the DOGM and OSM Internet home pages where an electronic copy of the report is accessible (respectively, <http://www.dogm.nr.state.ut.us/coal> and <http://www.osmre.gov/report99.htm>).

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

B. Utah Program

DOGM regularly attends and participates in monthly meetings of the Emery County Public Lands Council in Castle Dale, Utah (the Emery County seat). The mission of the Emery County Public Lands Council is to “work in partnership with federal and state agencies in fashioning management decisions and policies affecting lands within Emery County.”

On July 12, 2000, at the College of Eastern Utah in Price, Utah, DOGM conducted a seminar for 20 operators and consultants on the use of DOGM’s water quality database.

IV. Accomplishments, Issues, and Innovations

A. Accomplishments

Since 1981 when OSM approved the Utah permanent regulatory program, DOGM has forfeited reclamation performance bonds for five mines. In previous evaluation years, DOGM completed bond forfeiture reclamation on four of the mines. A few days after the end of evaluation year 2000, DOGM completed reclamation on the one remaining mine (the Blazon No. 1 Mine). Reclamation on these five bond forfeiture sites has been very successful.

B. Issues

Just prior to DOGM’s initiation of bond forfeiture reclamation on the Blazon No. 1 Mine late in evaluation year 2000, the landowners of the minesite submitted a written complaint to OSM. After reviewing the complaint, OSM had reason to believe that the former permittee North American Equities might be violating the regulations or laws, so it sent a notice to DOGM requesting action. After a DOGM inspection of the minesite to investigate the potential violation, DOGM convinced OSM that it had good cause for not taking an enforcement action against North American Equities. Amongst other things, OSM considered information from DOGM that no violation existed and that DOGM had exhausted all appropriate enforcement mechanisms against North American Equities, the permittee of the mine at the time of bond forfeiture.

In addition to the aforementioned enforcement issue, the landowners raised in their complaint various allegations about DOGM not properly implementing its regulatory program on the Blazon No. 1 Mine. Since these allegations concerned alleged improprieties of DOGM and not alleged violations by the permittee, they were not subject to any enforcement review by OSM. OSM and

DOGM agreed that they would discuss these issues in evaluation year 2001 and decide whether any of DOGM's actions on the Blazon No. 1 Mine permit constitute deficiencies in the Utah program that need to be addressed.

In the course of their review of the complaint, OSM and DOGM reviewed the DOGM inspection reports for the mine. They found that starting in September 1996 DOGM had reduced its inspection frequency of the mine from 12 monthly inspections per year to 1 inspection per year. DOGM's "abandoned sites" rules allow for such a reduction if the review of the environmental conditions at the site justify it, but DOGM did not make written findings supporting this decision as required by its rules. Upon becoming aware of this omission, DOGM prepared the required written findings. DOGM has also reduced the inspection frequency on the other four bond forfeiture sites without preparing the required written findings. DOGM is preparing the findings for the four sites.

C. Innovations

For the fifth 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 14 program and permitting specialists, scientists, and managers from OSM and DOGM. At a "SMCRA in the 21st Century" workshop in Cincinnati, Ohio, in September 2000, a DOGM team member 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.

During this evaluation period, DOGM finalized The Practical Guide to Reclamation in Utah. In this document, DOGM describes reclamation techniques that have been developed and successfully used in Utah over the past 20 years. This manual was presented and well-received at the Utah Mining Association annual meeting on August 17, 2000, and at the Utah Coal Environmental Subcommittee meeting on August 25, 2000. It is available on the DOGM Internet home page (<http://www.dogm.nr.state.ut.us/coal>).

DOGM has been standardizing and auditing its procedures for coal mining and reclamation permits under the Utah coal regulatory program. A DOGM "process team" has been diligently documenting and refining these procedures.

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. 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 permitted operations that existed at some time during the evaluation period and for which DOGM had not forfeited reclamation performance bonds. (By the end of the evaluation period, DOGM had fully released the bond for one of these operations.) OSM and DOGM did so through the following 319 on-the-ground observations: 4 OSM and DOGM joint, complete inspections; 111 DOGM complete inspections; 200 DOGM partial inspections; and 4 OSM and DOGM minesite evaluations on operations under temporary cessation (discussed in following section VII).

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 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 the same percentage as OSM and DOGM found in evaluation year 1999 (28 of 29 operations) and 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 high percentages are 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. In previous evaluation years, DOGM completed bond forfeiture reclamation on four of the mines. A few days after the end of evaluation year 2000 DOGM completed reclamation on the one remaining mine (the Blazon No. 1 Mine).

In evaluation year 1999, OSM and DOGM toured each of the five minesites and observed one offsite impact (an unavoidable, minor impact to water that was occurring as the result of a stream diversion relocation during reclamation). Owing to the completed or pending reclamation on all five sites and the erosional stability of the three sites that had been reclaimed as of the time of the minesite reviews in evaluation year 1999, OSM and DOGM decided not to revisit the sites in

evaluation year 2000.

Following this decision and as discussed in preceding report section IV.B., OSM received a citizen complaint on the Blazon No. 1 Mine bond forfeiture site. Prior to DOGM's initiation of bond forfeiture reclamation late in evaluation year 2000, the landowners submitted a written complaint alleging among other things that uncontrolled surface water runoff from the mine was entering an adjacent stream. DOGM conducted an inspection of the site to investigate this allegation. DOGM did not find evidence of an offsite impact that was caused by uncontrolled runoff.

Because OSM and DOGM did not observe any offsite impacts on the five bond forfeiture sites, table 4 (bottom half) shows that 100 percent of these sites were free of offsite impacts. By comparison and as discussed above, OSM and DOGM observed one offsite impact in evaluation year 1999 (4 of 5 operations, 80 percent).

The high percentages are an indication that Utah is effective at bond 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. All five of the bond forfeiture minesites have now been entirely reclaimed. 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. 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 the operations where DOGM had not forfeited reclamation performance bonds, 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 Most of the permitted operations are underground mines (table 2). 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 bond liability period is a minimum of 10 years.

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 2,349 acres of total disturbance that had not yet received final (phase III) bond release at the beginning of the evaluation year, DOGM granted a phase III bond release of 28 acres. It did not grant any phase I or II bond releases.

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 19 years since OSM approved the program. Table 6 shows the detailed reclamation status of the active and inactive operations, the operations for which DOGM forfeited the reclamation performance bonds, and the operations for which DOGM released all phase III bonds. 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, or III bond release.

In addition to the above analysis of bond release acreage, OSM and DOGM also assessed reclamation success in its evaluation of refuse pile reclamation, operations under temporary cessation, and highwall reclamation. For a discussion of these evaluations, see following section VII.

2. Sites Where DOGM Had Forfeited Reclamation Performance Bonds.

The Blazon No. 1 Mine was the last remaining site where DOGM had forfeited the reclamation performance bonds but had not completed reclamation.

DOGM had forfeited the \$38,000 bond for the 4.65-acre Blazon No. 1 Mine (table 7) in 1991. Prior to initiation of reclamation on the site at the end of evaluation year 2000, DOGM obtained the following additional monies for reclamation: \$10,989.27 in interest, \$20,000 from its fines account, \$30,000 from the Division of Wildlife Resources Habitat Council, and \$10,000 of in-kind volunteer services. DOGM completed the reclamation a few days after the end of the evaluation period.

C. Customer Service

As a customer service evaluation, DOGM continued a long-term, self-evaluation of the written findings that it prepares for permit applications. When completed, this project should result in improved findings, which are important not only to DOGM but also to the public that it serves (e.g., citizens and coal companies)

For a discussion of this evaluation, see following section VII.

VI. OSM Assistance

For the 1-year grant period starting July 1, 2000, OSM funded the Utah program in the amount of \$1.53 million (table 9). Through a Federal lands cooperative agreement, OSM reimburses DOGM 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 (87 percent, table 9).

In evaluation years 1997, 1998, and 1999, OSM supported the development of an electronic permitting system by providing \$28,151 to DOGM for computer hardware and software. In evaluation year 2000, OSM provided additional hardware for the electronic permitting system: a Windows NT workstation, priced at \$3,873, for the management of digital data and two digital cameras, priced at \$2,188, for field documentation of inspections and bond releases.

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, 11 DOGM employees participated in these activities during the evaluation year.

DOGM employees attended the following Technical Training Program courses and workshop: Enforcement Procedures, Erosion and Sediment Control, Historic and Archeological Resources, Permit Findings Workshop, Permitting Hydrology, and SMCRA in the 21st Century. A DOGM employee twice assisted in the teaching of the following Technical Training Program workshop: Permit Findings Workshop.

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

A DOGM employee attended the following Technology Transfer Program workshop: Soil Geochemistry for Arid and Semi-Arid Environments Workshop. DOGM employees attended and made presentations at the following Technology Transfer Program symposium and forum: Billings (Montana) Land Reclamation Symposium 2000 and the interactive forum on Surface Mining Reclamation Approaches to Bond Release: Cumulative Hydrologic Impacts Assessment and Hydrology Topics for the Arid and Semi-Arid West.

In response to 14 requests by DOGM staff, OSM's technical librarian provided various information, including 192 journal article reprints.

VII. Evaluation Topic Reviews

Each year OSM and DOGM evaluate topics to determine whether DOGM is effective in preventing offsite impacts, ensuring reclamation success, and serving its customers. Following are discussions of the evaluations that they conducted in the time period from October 1, 1999, through September 30, 2000. Written reports for these topics are available for review in the OSM Denver

Field Division office.

A. Coal Refuse Pile Reclamation

Underground coal mines create coal refuse piles that are composed of underground development waste and coal processing waste. Underground development waste is waste-rock mixtures of coal and rock that are excavated and disposed of from underground mine workings. Coal processing waste is earth material that is separated and removed from coal during cleaning and preparation of the coal for market.

Because most of Utah's operations are underground mines that have coal refuse piles, their reclamation is important to the success of the Utah program. During this evaluation year, OSM and DOGM evaluated reclamation success on refuse piles at four mines that had been revegetated from 10 to 4 years earlier. They analyzed whether ground cover, woody species density, and species diversity met or exceeded the permit standards for these criteria (established by reference areas or technical standards). They also analyzed whether the ground surface was eroding excessively.

With the exception of shrub density, OSM and DOGM found that the four mines exceeded, or were likely in the future to exceed, the revegetation success criteria. With respect to shrub density, OSM and DOGM found that two mines had good stands of shrubs that should support the postmining land use of wildlife habitat but that shrub densities fell far short of the standards for these mines. The OSM and DOGM evaluators recommended that DOGM consult with the Utah Division of Wildlife Resources to determine whether more realistic shrub density standards should be set for these and other mines.

Also with respect to shrub density, OSM and DOGM evaluators recommended the establishment of some permanent plots on reclaimed lands, including refuse piles. The purpose of the plots would be to assess whether plant species regeneration and invasion of native species from surrounding areas are likely to augment planted shrubs on the reclaimed lands to the extent that the shrub planting densities could be reduced on some mines.

Lastly, with respect to shrub density, OSM and DOGM evaluators recommended that, at one mine where vegetation test plots will soon be disturbed in the final reclamation of the refuse pile, the effect of topsoil depth on rooting depth and characteristics be looked at.

In test plots on one of the refuse piles, OSM and DOGM observed excessive erosion owing to steep slopes of about 40 percent. The operator of the mine is aware of this issue and is revising the grading plan for the pile.

B. Operations Under Temporary Cessation

Under Utah's rules, an operation that has been idle for 30 or more days may temporarily cease mining and reclamation operations by submitting a notice to DOGM. In this notice, the operator must identify the reclamation operations and environmental monitoring that will occur during the time of temporary cessation.

At the midpoint of the evaluation year, 4 of the 29 Utah operations were in temporary cessation. OSM and DOGM conducted a field evaluation on each of the four operations to determine whether the mines were causing offsite impacts and whether reclamation on the sites was timely (a measure of reclamation success).

OSM and DOGM found that overall DOGM ensures that offsite impacts were prevented and reclamation was timely at those sites that were in temporary cessation. However, there are opportunities for DOGM to improve its regulation of these sites.

The OSM and DOGM evaluators recommended that DOGM develop a formal process for reviewing permittees' notices of intention to temporarily cease operations. This process should include:

- Identification by DOGM permitting and inspection staff of areas that need to be reclaimed prior to or during the time of temporary cessation,
- preparation of written findings by DOGM on the temporary cessation notice, which the team recommends be in the form of a technical analysis document, and
- verification at the time of permit renewal that the permittee still has right-of-entry onto the property (e.g., valid, existing coal and surface leases).

Subsequent to OSM-Western Region and DOGM undertaking this evaluation, OSM-Headquarters contacted OSM-Western Region and indicated its intent to initiate rulemaking on the Federal temporary cessation regulations. As a part of rulemaking outreach, OSM-Headquarters distributed a survey, which OSM-Western Region and DOGM completed and returned. OSM-Western Region and DOGM recommended that the Federal regulations be revised to:

- require verification at the time of receipt of the temporary cessation notice and again at permit midterm and permit renewal that the permittee has adequate coal reserves and leases for the operation, including consultation with the Bureau of Land Management on Federal coal leases and the responsible State agency on State coal leases,
- require a demonstration by the permittee that there is a reasonable likelihood that mining will resume in the near future (i.e., a reasonable likelihood that the operation will recommence operations and not suspend operations permanently), and
- apply different standards to surface and underground mining operations, because there is a greater economic incentive for underground mine operators to recommence operations than for surface mine operators to do so.

C. Highwall Elimination and Retention As a Part of Approximate Original Contour Restoration

As an evaluation of reclamation success, OSM and DOGM conducted a multiyear review of

highwall elimination and retention as a part of approximate original contour restoration.

During evaluation year 1997, DOGM prepared 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 (seven 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.

In evaluation years 1999 and 2000, OSM and DOGM (1) tracked the permit revision submission dates and DOGM permit revisions review dates to determine whether the schedule was being adhered to and (2) reviewed 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 for good cause gave the permittees additional time to submit the permit revision applications. By the end of evaluation year 2000, the permittees for all of the deficient permits had submitted revised permit applications. However, owing to the submittal of applications late in the evaluation year and/or the existence of some remaining deficiencies, DOGM had not approved two of them by evaluation year's end.

In evaluation year 2001, OSM and DOGM will continue their evaluation of this highwall reclamation topic. They will verify that DOGM and the permittees resolved the highwall reclamation permit deficiencies in accordance with the requirements of the Utah regulatory program and that DOGM's written findings adequately support the permit application approvals.

D. Permit Findings

As a customer service evaluation, DOGM continued a long-term, self-evaluation of the written findings that it prepares for permit applications. DOGM undertook this project on its own initiative, but it is also responsive to OSM Director's June 1, 1999, memorandum requesting a "national priority topic review" of permit findings in primacy States.

DOGM created an Analysis and Findings Review Guide. It is the format that all DOGM staff are to follow in preparing written findings for the mine permit applications that they review. When it is completed by the end of calendar year 2000, the document will help to promote consistency and adequacy of written permit findings.

In response to the OSM Director's memorandum, OSM-Western Region on November 15, 1999, held a meeting, which all seven western primacy States, including Utah, attended. The meeting participants discussed the proper ways to prepare written permit findings. Also, under the Director's guidance, the OSM Technical Training Program staff and a group of OSM and State employees, including a DOGM evaluation team member, developed the outline and information for

a Permit Findings Workshop, which will be held at various locations throughout the United States. DOGM hopes to arrange for a workshop in its office in the Spring of 2001.

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, 1999, through September 30, 2000.

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
1999	0.49	26.08	26.57

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

TABLE 2

INSPECTABLE UNITS As of September 30, 2000												
Coal mines and related facilities	Number and status of permits								Insp. Unit	Disturbed acreage^A		
	Active or temporarily inactive		Inactive		Abandoned		Totals					
			Phase II bond release	IP						PP		
	IP	PP	IP	PP	IP	PP	IP	PP		IP	PP	Total
STATE and PRIVATE LANDS^B REGULATORY AUTHORITY: UTAH												
Surface mines	-	1	-	-	-	-	-	1	1	-	202	202
Underground mines	-	3	-	1	-	-	-	4	4	-	58	58
Other facilities	-	2	-	-	-	-	-	2	2	-	514	514
Subtotals	-	6	-	1	-	-	-	7	7	-	774	774
FEDERAL LANDS^C REGULATORY AUTHORITY: UTAH												
Surface mines	-	-	-	-	-	-	-	-	-	-	-	-
Underground mines	-	19	-	-	-	-	-	19	19	-	1454	1454
Other facilities	-	2	-	-	-	-	-	2	2	-	81	81
Subtotals	-	21	-	-	-	-	-	21	21	-	1,535	1,535
ALL LANDS												
Surface mines	-	1	-	-	-	-	-	1	1	-	202	202
Underground mines	-	22	-	1	-	-	-	23	23	-	1,512	1,512
Other facilities	-	4	-	-	-	-	-	4	4	-	595	595
Totals	-	27	-	1	-	-	-	28	28	-	2,309	2,309
Average number of permits per inspectable unit (excluding exploration sites) <u>1</u>												
Average number of acres per inspectable unit (excluding exploration sites) <u>83</u>												
Number of exploration permits on State and private lands: . . . <u>2</u> On Federal lands: <u>0</u> ^D												
Number of exploration notices on State and private lands: . . . <u>0</u> On Federal lands: <u>6</u> ^D												
IP: initial regulatory program sites; PP: permanent regulatory program sites.												
^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 148,419.												
^B Mines or facilities where entire disturbed area occurs on State and/or private lands.												
^C Mines or facilities where at least a portion of the disturbed area occurs on Federal lands.												
^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.												

TABLE 3

**UTAH PERMITTING ACTIVITY
As of September 30, 2000**

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												
Renewals				3	5	568				3	5	568
Amendments ^B				1	2					1	2	
Incidental boundary revisions				1	3					1	3	
Revisions (exclusive of incidental boundary revisions)				59	37		4	4		63	41	
Transfers, sales and assignments of permit rights												
Small operator assistance												
Exploration permits				2						2		
Exploration notices ^C				7	6					7	6	
Totals				73	53	568	4	4		77	57	568

Number of midterm permit reviews completed that are not reported as revisions 8

^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 NOT 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									

Number of inspectable units: 29 Inspectable units free of offsite impacts: 28

Percentage of inspectable units free of offsite impacts: 96

* The land resource affected by an "other" type of impact was coal that was mined off the permit area.

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													
	Encroachment													
	Other													
	Total													

Number of inspectable units: 5 Inspectable units free of offsite impacts: 5

Percentage of inspectable units free of offsite impacts: 100

TABLE 5

ANNUAL STATE MINING AND RECLAMATION RESULTS		
Bond release phase	Applicable performance standard	Acreage released during this evaluation period
Phase I	! Approximate original contour restored	0 ^A
Phase II	! Topsoil or approved alternative replaced ! Surface stabilized ! Vegetation established	0 ^A
Phase III	! Postmining land use/productivity restored ! Vegetation successfully and permanently established ! Groundwater recharge, quality, and quantity restored ! Surface water quality and quantity restored	28 ^A
Bonded acreage status		Acres
Total number of bonded acres at end of last evaluation year (September 30, 1999) ^B		2,349
Total number of bonded acres at the end of this evaluation year (September 30, 2000) ^B		2,300
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.</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, 2000

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 2000	Total (all years)			EY 2000	Total (all years)	EY 2000	Total (all years)	EY 2000	Total (all years)	EY 2000	Total (all years)	EY 2000	Total (all years)	EY 2000	Total (all years)	EY 2000
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		63			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, 2000

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 2000	Total (all years)			EY 2000	Total (all years)	EY 2000	Total (all years)	EY 2000	Total (all years)	EY 2000	Total (all years)	EY 2000	Total (all years)	EY 2000	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)			392	392													
UtahAmerican Energy, Inc. Horse Canyon Mine ACT/007/013		X		87	87			61.65	61.65			61.65						
Mountain Coal Company Gordon Creek #2, #7, and #8 ACT/007/016		X		17.58	17.58			17.58										

RECLAMATION STATUS OF ALL AREAS DISTURBED UNDER THE UTAH PERMANENT REGULATORY PROGRAM^A
(Acres)
As of September 30, 2000

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 2000	Total (all years)			EY 2000	Total (all years)	EY 2000	Total (all years)	EY 2000	Total (all years)	EY 2000	Total (all years)	EY 2000	Total (all years)	EY 2000	Total (all years)
Canyon Fuel Company, LLC Soldier Canyon Mine ACT/007/018		X		24	24													
Andalex Resources, Inc. Centennial Mine ACT/007/019		X		35.27	35.27													
Lodestar Energy, Inc. Horizon Mine ACT/007/020		X		9.5	9.5													
Savage Industries, Inc. Savage Coal Terminal ACT/007/022	(preparation plant and loadout)			122	122													
Andalex Resources, Inc. Wildcat Loadout ACT/007/033	(preparation plant and loadout)			60	60													

RECLAMATION STATUS OF ALL AREAS DISTURBED UNDER THE UTAH PERMANENT REGULATORY PROGRAM^A
(Acres)
As of September 30, 2000

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 2000	Total (all years)			EY 2000	Total (all years)	EY 2000	Total (all years)	EY 2000	Total (all years)	EY 2000	Total (all years)	EY 2000	Total (all years)	EY 2000	Total (all years)
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)									
Plateau Mining Corporation Willow Creek Mine ACT/007/038		X		132.9	132.9													
Canyon Fuel Company, LLC Dugout Mine ACT/007/039		X		20.1	20.1													
West Ridge Resources, Inc. West Ridge Mine ACT/007/041		X		29	29													

RECLAMATION STATUS OF ALL AREAS DISTURBED UNDER THE UTAH PERMANENT REGULATORY PROGRAM^A
(Acres)
As of September 30, 2000

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 2000	Total (all years)			EY 2000	Total (all years)	EY 2000	Total (all years)	EY 2000	Total (all years)	EY 2000	Total (all years)	EY 2000	Total (all years)	EY 2000	Total (all years)	EY 2000
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		23.88 ^D	23.88														
PacifiCorp Deer Creek Mine ACT/015/018		X		95.8	95.8														

RECLAMATION STATUS OF ALL AREAS DISTURBED UNDER THE UTAH PERMANENT REGULATORY PROGRAM^A
(Acres)
As of September 30, 2000

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 2000	Total (all years)			EY 2000	Total (all years)	EY 2000	Total (all years)	EY 2000	Total (all years)	EY 2000	Total (all years)	EY 2000	Total (all years)	EY 2000	Total (all years)
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			
Co-Op Mining Company Bear Canyon Mine ACT/015/025		X		24	24													
Genwal Resources, Inc. Crandall Canyon ACT/015032		X		10.7	10.7													
Canyon Fuel Company, LLC SUFCA Mine ACT/041/002		X		70.98	70.98													

RECLAMATION STATUS OF ALL AREAS DISTURBED UNDER THE UTAH PERMANENT REGULATORY PROGRAM^A
(Acres)
As of September 30, 2000

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 2000	Total (all years)			EY 2000	Total (all years)	EY 2000	Total (all years)	EY 2000	Total (all years)	EY 2000	Total (all years)	EY 2000	Total (all years)	EY 2000	Total (all years)
Sites receiving full release of reclamation performance bonds. ^F																		
Blackhawk Coal Company Willow Creek Mine ACT/007/002		X		4.2														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	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	12.5	12.5
Western States Minerals Corp. J.B. King Mine ACT/015/002		X		28				28	28		28	28		- ^G		28	28	28

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

(Acres)

As of September 30, 2000

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 2000	Total (all years)			EY 2000	Total (all years)	EY 2000	Total (all years)	EY 2000	Total (all years)	EY 2000	Total (all years)	EY 2000	Total (all years)	EY 2000	Total (all years)
Bond forfeiture sites.																		
Sunnyside Coal Company Sunnyside Mine FOR/007/007		X		287.4				287.4				287.4 ^H						
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	6	31		2,679.3	2226.65			489.98		164.5		467.75		39.8		67.8	28	62.01

^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. A Utah-hired contractor completed reclamation on October 4, 2000.

^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, 1999 ^A	1	38,000 ^B	4.65 ^C
Bonds forfeited during EY 2000	0		
Forfeited bonds collected as September 30, 1999 ^A	1	38,000 ^B	4.65 ^C
Forfeited bonds collected during EY 2000	0		
Forfeiture sites reclaimed during EY 2000	0	0 ^D	0 ^C
Forfeiture sites repermited during EY 2000	0		
Forfeiture sites unreclaimed as of September 30, 2000	1		4.65 ^C
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 In addition to the bond forfeiture money, Utah obtained the following additional money for reclamation of the site: \$10,989.27 in interest, \$20,000 from its fines account, \$30,000 from the Division of Wildlife Resources Habitat Council, and \$10,000 of in-kind volunteer services. ^C Disturbed acres. ^D Cost of reclamation, excluding general administrative expenses.			

TABLE 8

UTAH STAFFING (Full-time equivalents at end of evaluation year)	
Function	EY 2000
Regulatory Program	
Permit review	14.0
Inspection	6.0
Other (administrative, fiscal, personnel, etc.)	4.0
Total	24.0

TABLE 9

FUNDS GRANTED TO UTAH BY OSM (Millions of dollars) EY 2000^A		
Type of grant	Federal funds awarded	Federal funding as a percentage of total program costs
Administration and enforcement	1.53	87.0
Small operator assistance	0.00	0.0
Total	1.53	

^A Numbers in the table are for the grant period July 1, 2000, through June 30, 2001.