

OFFICE OF SURFACE MINING RECLAMATION AND ENFORCEMENT

Annual Evaluation Summary Report

for the

Regulatory Program

Administered by the State

of

NEW MEXICO

for

Evaluation Year 2004

(July 1, 2003 to June 30, 2004)

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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 the Secretary of the Interior as meeting the minimum standards specified by SMCRA. This report contains summary information regarding the New Mexico Program and the effectiveness of the New Mexico Program in meeting the applicable purposes of SMCRA as specified in section 102. This report covers the period of July 1, 2003 to June 30, 2004.

Detailed background information and comprehensive reports for the program elements evaluated during the period are available for review and copying at the Albuquerque Field Office (AFO), OSM.

II. Overview of the New Mexico Coal Mining Industry

The coal-bearing regions of New Mexico underlie about 25,000 square miles or 20.6 percent of the total area of the State. The majority of the coal-bearing regions lie under Indian lands that are regulated by OSM. The New Mexico Mining and Minerals Division (MMD) regulates mines on the remaining coal-bearing regions.

Most of the coal mined is located in the San Juan Basin in the northwestern part of the State and in the Raton area in the north-central part of the State. New Mexico's coal varies from Pennsylvanian to Paleocene Age. Coal resources in the San Juan Basin are of the late Cretaceous Age; those in the Raton area are of the Paleocene Age. The main coal-bearing strata are the Mesa Verde and Fruitland Formations in the San Juan Basin and the Raton and Vermejo Formations in the Raton area. San Juan Basin coal generally ranges from subbituminous A to high volatile bituminous C. Raton area coal ranges from high volatile A to bituminous B. The demonstrated coal reserve base is 4.65 billion tons, or about 1 percent of the national reserves.

The early Spanish settlers used small amounts of coal several centuries ago. Significant commercial coal mining began in 1861 when the U.S. Army opened a mine in the Carthage field for Fort Craig, New Mexico. By 1889, annual production exceeded one million tons for use by the railroads and by lead and copper smelters. Early coal production, stimulated by World War I, peaked in 1918 at more than four million tons for use by smelters, factories, and railroads. Conversion of the railroads to diesel and the smelters and factories to natural gas caused a decline in the use of coal until 1958. An increase in the production of coal was caused by inexpensive stripping methods and an increased demand for coal by electric utilities in the Southwest.

The climate of the State is arid. The average annual precipitation at the San Juan Mine in the Four Corners area is 9.67 inches. Most of the precipitation is in the form of thundershowers from July to September. Re-vegetation in parts of the San Juan Basin is

extremely difficult because of low rainfall amounts and because of highly erodible soil types.

III. Overview of Public Participation Process

The New Mexico Oversight Team (NMOT) sent the 2004 Workplan out for comment to eighteen (18) public and private agencies and interested parties. Responses were received from three parties; Region 6, United States Environmental Protection Agency (EPA), the State Historic Preservation Officer (SHPO), and the United States Department of Agriculture, Natural Resource Conservation Service (NRCS). These comments are summarized below:

EPA thanked OSM for its efforts in ensuring appropriate and timely consultation that will be helpful to EPA's Tribal Operations Committee in meeting its trust responsibility. EPA also requested that OSM provide adequate oversight to minimize any adverse off-site impacts of particulate matter air emissions during any on-site remediation projects.

SHPO stated that they had no comments.

NRCS thanked OSM for the opportunity to review the 2004 Workplan, but had no comments.

IV. Major Accomplishments/Issues/Innovations in the New Mexico Program

The purpose of oversight is to evaluate to evaluate a State's or Tribe's ability to accomplish the goals and responsibilities of SMCRA. The NMOT (consisting of OSM and MMD personnel) developed a workplan that governed the oversight of the New Mexico Program for the 2004 evaluation period. The workplan focused on site-specific topics concentrating on the major goals of SMCRA: elimination of off-site impacts and achieving successful reclamation of the post-mining land use. Using the 2004 plan, the Team proactively investigated a number of variables that influence these two goals. Each element was designed to allow expansion in future years based on the information collected during previous oversight periods. The strategic plan adopted was to use oversight to generate ideas for improving regulatory efficiency, and on-the-ground reclamation.

The Team documented problems identified during the course of the oversight period, and addressed them as they arose. The 2004 Topic-Specific Evaluation Report summarizes the methods used, problems identified, and solutions implemented by the Team during the oversight period. This report is on file at AFO. The report provides a summary of the State's program performance during the oversight period based on the performance measurements described in the workplan, and provides recommendations for future oversight.

Reviewing the annual reports also enabled MMD to collect data on the quality and timeliness of reclamation. The information tabulated by MMD shows that a total nine

(11) operations comprising 79,325 acres were under permit in New Mexico as of June 30, 2004. The program manages those permits in accordance with the requirements of SMCRA and the approved New Mexico Program, as evidenced by OSM's approval of a 2004 National Reclamation Award for exemplary design and construction of steep slope drainages performed by the San Juan Mine. Overall, New Mexico is implementing its approved program consistent with the provisions established in Section 102 of SMCRA.

V. Success in Achieving the Purposes of SMCRA as Measured by the Number of Observed Off-Site Impacts and the Number of Acres Meeting the Performance Standards at the time of Bond Release.

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

A. Off-Site Impacts:

MMD conducted 125 partial and 50 complete inspections during the EY. All inspection reports filed for those inspections were reviewed by OSM. These inspections resulted in two (2) enforcement actions. There were no references in any of the reports to any off-site impacts observed. Additionally, no off-site impacts were observed during any of the joint MMD/OSM inspections conducted during the oversight period. An Off-Site Impacts report for the New Mexico Program is on file at AFO.

B. Reclamation Success:

MMD approved 793.4 acres for phase III bond release during this EY. This information is recorded in Tables 5 and 6, Appendix A, of this report.

C. Customer Service:

One Citizen Inquiry was received by OSM during the EY. Details of the response by MMD can be found in the 2004 Topic-specific Report for New Mexico, on file at AFO.

VI. OSM Assistance

Oversight for 2004 was conducted jointly by the NMOT, which consisted of MMD and OSM personnel. The mission adopted by the NMOT was to evaluate the State's ability to accomplish the goals and responsibilities associated with the Surface Mining Control and Reclamation Act, using OSM Directive REG-8, and the EY 2004 Workplan as its guidance. The Team investigated variables that influence the major goals of SMCRA: elimination of off-site impacts and achieving successful reclamation that meets the intended post-mining land use.

Annual Grant Award

MMD received \$737,526 in Federal assistance for the operation of the Coal Mine Reclamation Bureau (CMRB), which is the organizational subdivision of MMD responsible for administering the State Regulatory Program.

Office of Technology Transfer

New Mexico Mining and Minerals Division continues to be on the western fore-front in electronic permitting, GIS, and final bond release. Staff made significant contributions to the new technologies workshops conducted by OTT this year.

New Mexico Staff made presentations at all three OTT/WRTT New Technologies Implementation Workshops, and four staff members attended three workshops (Jim O'Hara, Rick Koehler, Dave Clark, and Eric Frey) – for a total of 10 attendees.

The first New Technologies Implementation Workshop was held in Santa Fe in November 2003, and was co-sponsored by New Mexico MMD showcasing State achievements, GIS and electronic permitting by:

- Describing GIS initiatives (office and field applications)
- Discussing the integration of data base system for GIS
- Describing infrastructure (GIS/E-Permitting hardware and software platform)
- Describing use of Intranet and Internet for agency business
- Discussing compatibility issues between MMD/industry and how to resolve them
- Discussing the reality of implementing a GIS – cost, personnel needed, training, resource needs, timeframe
- Discussing progression of gain/benefits – implementation costs

In addition NM staff arranged for a “Metadata” presentation by Rich Friedman, GIS Coordinator, McKinley County, NM, GIS Center

At the Denver meeting Jim O'Hara presented “Pieces of the Puzzle – When is Electronic Permitting Like a GIS? - A Manager's Perspective”, Rick Koehler “GIS Field Application Using ArcPAD and PDAs”, and Dave Clark “Desk Top GIS for Bond Release”

At Salt Lake City meeting Eric Frey presented “Bridging GIS to SQL/GIS Analysis/XML for E-Permitting” as a follow-up on the three questions that were asked at the WRTT meeting in March:

- How can I cheaply and easily connect my GIS to my database?
- Now that I have a GIS, how can I use it to analyze field data over time?
- How can I define a required structure for my electronic permits that anyone can access?

In keeping up with new technologies, *New Mexico Introduces Lidar Mapping to Surface Mine Permitting Process*, an article published in Coal Age magazine (Nov/Dec 2003) and co-written by Rick Koehler was distributed by OTT to WRTT.

To support the new technologies implementation, this year OTT purchased the following for New Mexico MMD:

Dell 19" Flat Panel Monitors (2 @ \$602.31 each)	\$1,204.62
IPAQ Pocket PCs (6 @\$625 each) + accessories	\$4,667.21
Digital Camera and Accessories	\$605
Sharp Library1 Developer Licenses	\$299
Fileview.net Contr 5.2	\$100

Technical assistance to New Mexico in the area of bonding included:

Providing definitions and applications of accounting terms to bonding.

Providing information on the status of Frontier Surety Company.

Information and guidance on bond forms for use with Phased Bonding, surety company liquidation published in the U.S. Treasury Circular 570, as well as requirements for surety companies being listed in, and updates to, the Circular.

OSM's Technical Librarian filled 3 reference requests, and provided 2 journal articles to the NM Mining and Minerals Staff. In addition New Mexico received 7 technical publications: The Seed and Soil Dynamics in Shrubland Ecosystem; Geologic Studies of Mercury by the USGS; Strontium Isotopic Characterization of Coal and Sandstone Aquifers, Powder River Basin; Evaluation and Comparison of Hypothesis Testing Techniques for Bond Release Applications; Native Plants Materials Directory; Proceedings of Market-Based Approaches to Mined Land Reclamation and Reforestation: A Technical Interactive Forum; Effect of Mechanical and Biological Enhancements on Erosion at High Elevation Disturbed Lands; 10 CDs, and “Act Responsibly: Stay Out – Stay Alive” posters and teachers materials, that were distributed to WRTT.

VII. General Oversight Topic Reviews

In addition to the required areas of program review OSM and MMD chose one additional areas for review. Details of how these reviews were conducted can be found in the Topic-Specific Report, on file at AFO. The findings are as follows:

A. Reclamation Success (bond release)

MMD granted a final bond release in the amount of \$150,000 to the De-Na-Zin Mine on July 1, 2003, a final bond release in the amount of \$998,743 to the Fence Lake No. 1 Mine on January 21, 2004, a final bond release in the amount of \$207,931 to the Gateway Mine on January 12, 2004, a phase I bond release in the amount of \$661,616 to the Cimarron Mine on March 5, 2004, and a final bond release in the amount of \$7,739,773 Fence Lake Mine on May 6, 2004.

OSM and MMD found the five (5) bond release applications to be accurate and approvable.

B. Reclamation Success (topsoil replacement)

OSM and MMD found that the San Juan Mine was in full compliance with the terms of the permit regarding topsoil replacement. However, very small areas of reclamation, represented by few sampling points may require additional sampling.

APPENDIX A

These tables present data pertinent to mining operations and State and Federal regulatory activities within New Mexico. They also summarize funding provided by OSM and New Mexico staffing. Unless otherwise specified, the reporting period for the data contained in all tables is October 1, 2002 to June 30, 2003. Additional data used by OSM in its evaluation of New Mexico's performance is available for review in the evaluation files maintained at AFO.