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 2009

(July 1, 2008 to June 30, 2009)

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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, 2008 to June 30, 2009.

Detailed background information and comprehensive reports for the program elements evaluated during the period are available for review and copying at the Albuquerque Area Office (AAO), 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 and was used primarily by railroads and lead and copper smelters. Early coal production peaked in 1918 at more than four million tons, stimulated by World War I. Conversion of the railroads to diesel and the smelters and factories to natural gas caused a decline in the use of coal until 1958, when production increased due to the adoption of 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.

The New Mexico Program regulates nine (9) inspectable units. They are: Chevron Mining Inc., Ancho, York Canyon Surface, York Canyon Underground, and McKinley mines; BHP Billiton's La Plata, San Juan Surface, and San Juan Underground mines; and, Peabody Natural Resources' Lee Ranch and El Segundo surface mines. However, only three (3) mines (San Juan Underground, Lee Ranch and El Segundo) produced coal during the evaluation period. The other six (6) are in reclamation and awaiting final bond release.

New Mexico coal production and value have fluctuated within a narrow range over the past twenty years, reaching an all-time high in 2001. Since 2006, production decreased from 14.029 million short tons to 12.058 short tons in 2008. The cause of the decreases was the winding-down of mining at the McKinley Mine, which will cease all production in late 2009. In late June 2008, Lee Ranch Coal Company initiated coal shipments from the newly opened El Segundo Mine. The mine is forecast to produce 102 million short tons of coal over the next 30 years.

While direct coal employment remained stable at 1,412 in 2007, the number of contract employees increased 121.9 percent to 233. Due to the closure of the McKinley Mine, coal employment decreased in 2008 and will likely decrease again in 2009. Some of the employment losses are expected to be offset by the addition of miners and support staff at El Segundo.

According to the Energy Information Administration, coal is the only fossil fuel that has continued to increase in cost at electric plants each year since 2000. Increased delivered coal costs resulted from new safety regulations requiring mining equipment retrofitting, from higher coal extraction taxes and from higher diesel fuel costs. Approximately 30 percent of New Mexico coal was sold to industrial clients in 2007, the rest was used for electricity generation. The primary customers for New Mexico's coal are four power plants located in the Four Corners region; the Plains Electric Generating Station in Prewitt, the San Juan Generating Station in Waterflow, the Four Corners Generating Plant in Fruitland, and the Cholla Power Plant in Joseph City, Arizona. The proposed 1,500-megawatt Desert Rock Generating Plant is currently in the planning and permitting process.

The Coal Mine Reclamation Program focuses on promoting successful and innovative approaches to reclaiming areas disturbed by coal mining. Approval of final reclamation is a difficult achievement. BHP Billiton's Black Diamond Mine met their final reclamation criteria and attained final bond release in January 2007. After six years of geomorphic design and construction work, earthmoving at BHP Billiton's La Plata was completed in December 2008, and revegetation activities continued into spring 2009. BHP turned forty

(40) acres and the mine facilities over to San Juan County on September 5, 2007 for use as an industrial park. Geomorphic reclamation projects are also ongoing at the McKinley and San Juan mines. Chevron Mining, Inc., continues to perform maintenance projects at their York Canyon Complex mines.

III. **Overview of Public Participation Process**

OSM and MMD agreed on topics for the Evaluation Year 2009 Workplan. The Workplan was then sent out for comment to seventeen (17) public and private agencies and interested parties. AAO received responses indicating "no comment" from; the U.S. Forest Service in Albuquerque, NM, the New Mexico State Historic Preservation Officer, and the Natural Resource Conservation Service in Albuquerque, NM. The process resulted in a final State/Federal Workplan being issued on January 20, 2009.

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

The purpose of oversight is to evaluate a State or Tribe's ability to accomplish the goals and responsibilities of SMCRA. OSM and MMD personnel developed a workplan that governed the oversight of the New Mexico Program for the 2009 evaluation period. The workplan focused on site-specific topics for the major goals of SMCRA: elimination of off-site impacts and achieving successful reclamation of the post-mining land use. Using the 2009 plan, OSM and MMD 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.

OSM and MMD personnel documented problems identified during the course of the oversight period, and addressed them as they arose. The 2009 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 eight (8) operations comprising 87,366 acres were under permit in New Mexico as of June 30, 2009. The program manages those permits in accordance with the requirements of SMCRA and the approved New Mexico Program.

Overall, MMD 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 eighty-eight (88) partial and thirty-six (36) complete inspections during the EY. All inspection reports filed for those inspections were reviewed by OSM. These inspections resulted in seven (7) Notices of Violation (NOV's) containing seven (7) separate violations, and no Cessation Orders (CO's). No off-site impacts were noted on any inspections conducted during the EY.

B. Reclamation Success: MMD approved no applications for bond release during the evaluation year.

C. Customer Service: One Citizen Complaint received June 11, 2009 concerning drainage control at one mining operation. MMD conducted and inspection on June 15, 2009. No violation was issued. MMD sent a letter notifying the citizen of the status of the investigations on June 23, 2009. OSM received a copy of the letter. MMD acted in a timely manner and in compliance with the approved State Program.

VI. **OSM Assistance**

Annual Grant Award

MMD received $865,000 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. The grant award represents 72% of the total program cost.

TIPS, Technical Transfer, Technical Assistance and Library Activities

The OSM/Technical Information Processing System (TIPS) group provided four (4) technical training courses to MMD during the evaluation period. They were; Introduction to ER Mapper 7.2, High-Accuracy GPS for GIS Trimble ProXRT, Galena, and Introduction to ArcGis for Mining and Reclamation. The total cost to OSM for this training was $1,014.00. MMD uses ER Mapper in the manipulation of georeferenced images (crop to fit mobile computing devices) and in the classification of imagery. MMD uses information from the ArcGIS course to create various maps for mine plan

review and AML projects. The MMD Engineer took the Galena (slope stability) class this year and used the program to evaluate permitting issues.

OSM's Technical Librarian filled two reference requests and provided nine article reprints to the New Mexico MMD staff members.

WRTT conducted a service manager visit to MMD in June. The office was informed of all new aspects of the TIPS and Technology Transfer programs.

MMD borrowed the following pieces of shared equipment from the TIPS and Technology Transfer Division: The Real Time Kinetic (RTK) GPS unit, the Borehole camera, the Ricoh GPS enabled digital camera and the FLIR thermal camera.

MMD is currently working with the state of Montana on a project in which the evaluation, disposal and use of fly ash on mine sites is proposed. Assistance was requested through our office to send someone from the Program Support Division (PSD) to help evaluate soils and fly ash on the mine site. This project is ongoing.

MMD continued its support of the Western Region Technology Transfer team (WRTT) by making available a Title IV and Title V representative for the monthly call. Dave Clark and James Smith continued their strong support of WRTT by attending most monthly calls. A representative from MMD also attended the National Technology Transfer Team (NTTT) meeting this year on behalf of the WRTT to rank and select this year's Applied Science Cooperative Agreement awardees.

MMD sent a representative to this year's WRTT annual meeting in Billings, MT.

VII. **General Oversight Topic Reviews**

In addition to the required areas of program review, OSM and MMD chose three (3) additional elements for review:

Reclamation Success (Ash Disposal at the San Juan Mine):

OSM and MMD conducted a joint review of the requirements for ash disposal and monitoring of ash disposal sites found in the permit, and conducted joint inspections to determine on-the-ground compliance with those requirements. The review focused on evaluation of the groundwater monitoring program at the mine, inspection of existing monitoring sites and the examination of site-specific data collected from those sites, as well as any reports that are required to be submitted to MMD. Due to the voluminous amount of data needing to be analyzed and the complexity of the site itself, the project will be carried over into EY-2010.

Reclamation Success (Final Backfilling and Grading at LaPlata Mine):

OSM and MMD conducted an oversight inspection of the LaPlata Mine on February 24, 2009. The purpose of the inspection was to evaluate the "as built", post mining topography against the approved final surface configuration (FSC) map, Exhibit 906.B(3)of the permit. OSM and MMD found that the "as-built" topography is a reasonable match with the "permitted" topography. There were some deviations from the FSC, however, these discrepancies were in the form of additional drainage density and shorter slope lengths. The consensus conclusion was that the "as built" landform is more stable than the "permitted" land form.

Customer Service (landowner notification/participation): MMD received no bond release applications during the evaluation period.

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 July 1, 2008 to June 30, 2009. Additional data used by OSM in its evaluation of New Mexico's performance is available for review in the evaluation files maintained at AAO.

NOTE

The Table 1 figures for New Mexico exclude coal production from Indian Lands.