

OFFICE OF SURFACE MINING

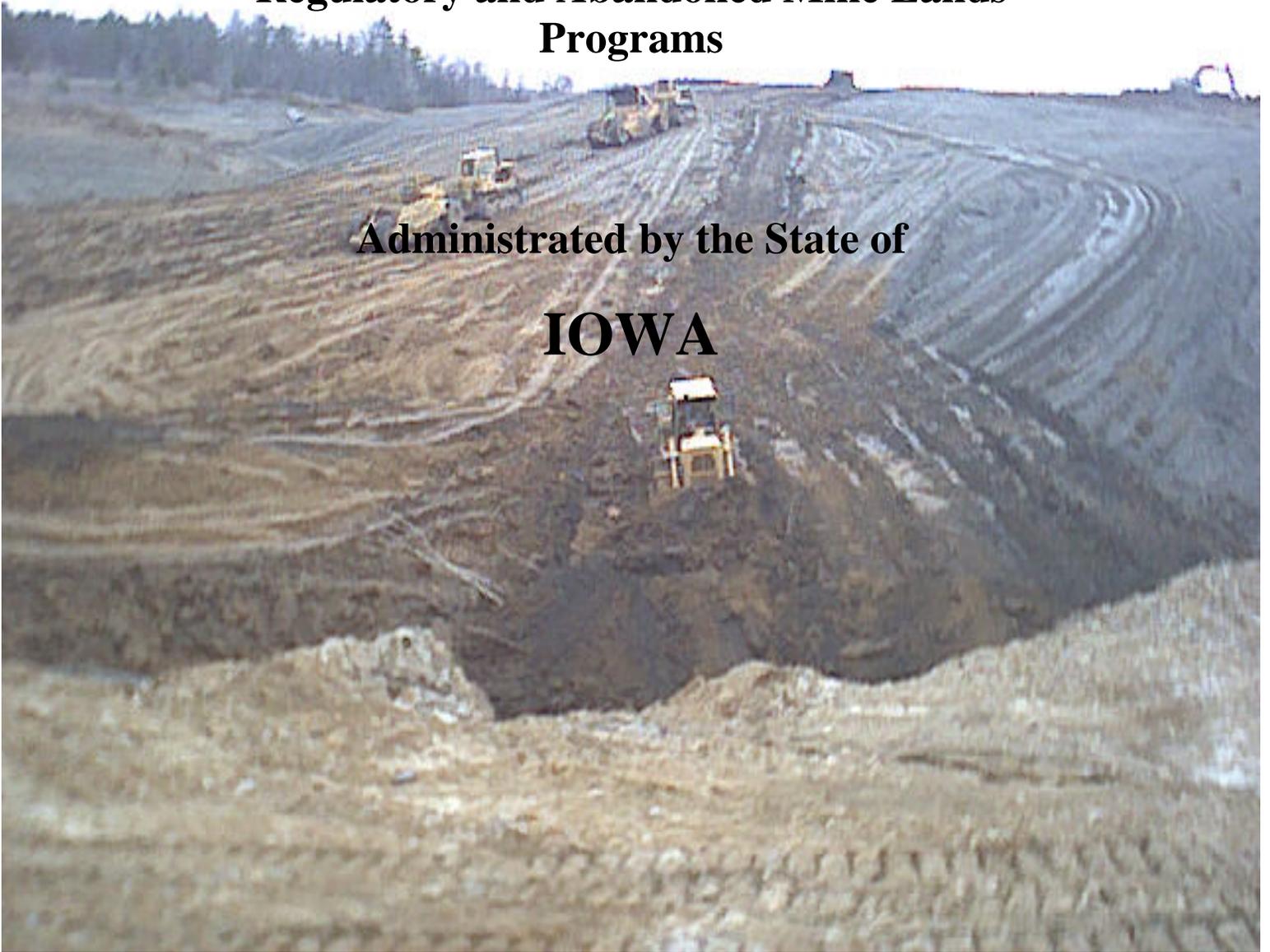
2004 Annual Evaluation Summary Report

for the

**Regulatory and Abandoned Mine Lands
Programs**

Administrated by the State of

IOWA



**Prepared by:
Alton Field Division
Office of Surface Mining**

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Cover page is American Coal Company Mine #8, Unit A bond forfeiture reclamation in progress.

EXECUTIVE SUMMARY

During the 2004 Evaluation Year (EY), the Office of Surface Mining (OSM) conducted oversight evaluations of the Iowa Department of Agriculture & Land Stewardship, Division of Soil Conservation (IDSC) Regulatory and Abandoned Mine Land (AML) Programs. The oversight studies focused on the success of the IDSC in meeting the Surface Mining Control and Reclamation Act of 1977 (SMCRA) goals for environmental protection and prompt, effective reclamation of land mined for coal.

The Title V program in Iowa has not permitted a new site since 1992 and mining ceased in 1994; as a result, OSM has determined that the focus of this report would be the State's progress in completion of bond forfeiture reclamation rather than the normal permitting and inspection elements. Studies in the areas of bond forfeiture reclamation projects and reclamation success were conducted by OSM in support of OSM's national initiatives.

- ! **OFFSITE IMPACTS** - Because of the bond forfeiture reclamation, two offsite impacts were eliminated.
- **RECLAMATION SUCCESS** – The IDSC received one bond release application to the State in EY 2004 from a surety company completing reclamation. Phase I and II of the surety release has been made.

Two bond forfeiture site designs have been completed, two sites prepared for bid opening, and two sites are under construction.

The following general oversight topic reviews were completed.

- **AML ON-THE-GROUND RECLAMATION** - The Iowa AML Program is managed in a cost effective and professional manner. All projects are in compliance with appropriate laws and regulations. Designs are well thought out, reasonable, cost effective, and use the best technology currently available. Completed projects have resulted in elimination of extreme hazards to the public and restoration of beneficial land uses. Moreover, they are completed with minimal disturbance to the environment and protecting endangered species.
- ! **GRANTS REVIEW** - In FY 2000, the State committed to timely submission of all grant documents. However, in that year and subsequent FY 2001 thru FY 2003, the Title V grants were not submitted in a timely manner. In FY 2004 the application due date for an Iowa Title V grant was April 30, 2004. Grant Application GR 403193 was received on April 30, 2004. Iowa has addressed the timely submission of grant documents in Evaluation Year 2004.

2003 IOWA ANNUAL EVALUATION REPORT

I. Introduction

The SMCRA created the OSM in the Department of the Interior. SMCRA provides authority to OSM to oversee the regulation of and provide Federal funding for State regulatory programs that have been approved by OSM as meeting the minimum standards specified by SMCRA. This report contains summary information regarding the IDSC and the effectiveness of the Iowa 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.

The primary focus of the OSM oversight policy in Iowa for EY 2004 is an on-the-ground, results-oriented strategy that evaluates bond forfeiture reclamation. To further the idea that oversight is a continuous and ongoing process, this annual report is structured to report on the progress of OSM and Iowa in conducting evaluations and completing oversight activities. The report also documents their accomplishments at the end of the evaluation period. Detailed background information and comprehensive reports for the program elements evaluated during the period are available for review and copying at OSM's Mid-Continent Regional Coordinating Center (MCRCC) at 501 Belle Street, Alton, Illinois, 62002.

The following list of acronyms is used in this report:

AML	Abandoned Mine Land
AMLIS	Abandoned Mine Land Inventory System
CSI	Appalachian Clean Streams Initiative
EY	Evaluation Year
IDSC	Iowa Division of Soil Conservation
MCRCC	Mid-Continent Regional Coordinating Center
OSM	Office of Surface Mining
SMCRA	Surface Mining Control and Reclamation Act of 1977
TIPS	Technical Innovation and Professional Services

II. Overview of the Iowa Coal Mining Industry

Iowa's coal ranges from sub-bituminous to high-volatile C bituminous. The demonstrated coal reserve base in Iowa is estimated to be 2.2 billion tons, or less than one-half of one percent of the United States' coal reserves. Coal-bearing areas cover about 18,468 square miles, or 33 percent of the State. Most coal seams in Iowa are less than five feet thick and have relatively high sulfur content.

Coal mining activities first began in Iowa in the 1840's. More than 35 companies extracted coal in 17 counties. A partial list of the counties where historical production occurred includes Polk, Story, Wapello, Van Buren, Keokuk, Davis, and Appanoose counties. Mining under SMCRA was concentrated in the four counties of Lucas, Marion, Mahaska, and Monroe. Annual

production varied throughout Iowa's mining history, peaking in 1981 at 708,602 tons. Production subsequently declined until it ceased in 1994 with 500,000 tons mined during that year. Most of this production came from surface mining operations. Fifty people were employed in the industry at that time. Thin coal seams and high sulphur content of the coal contributed to the demise of coal mining in the State.

During the 2004 evaluation period, Iowa had 20 inspectable units. All but two units were abandoned and in bond forfeiture or in lieu of forfeiture reclamation. Sixteen of these units were surface mines, two were underground mines, and two were wash plants (Table 2). The average number of acres per inspectable unit was 186. All of the permits in Iowa have expired and have not been renewed.

Before the enactment of SMCRA, approximately 13,764 acres were affected by coal mining in 17 Iowa counties. The current listing of hazardous conditions recorded in OSM's Abandoned Mine Land Inventory System (AMLIS) includes the following: 109,779 feet of dangerous high-walls; 1,427 acres of dangerous spoil piles and embankments; 54 hazardous water bodies; 28 vertical openings; 22 miles of sediment clogged streams; 2,209 acres of mine lands which cause flooding and sediment deposition on un-mined land.

III. Major Accomplishments/Issues/Innovations

Abandoned Mine Land Program

In a 30 CFR Part 884 letter dated September 26, 1994, OSM's Director notified Iowa that its AML Plan must be amended to comply with the Abandoned Mine Land Reclamation Act of 1990 and the Energy Policy Act of 1992. Iowa submitted a formal amendment on June 14, 2002, in response to the 30 CFR Part 884 letter. This amendment also included provisions for Iowa to assume responsibility for the AML emergency program. The final rule approving the amendment was published December 5, 2002. The State received six emergency complaints in EY 2004. Five complaints were easily resolved as non-coal related emergencies. One complaint required drilling to determine that it was non-coal related.

This year's Enhancement and Performance Review and reviews conducted in previous years have found that Iowa's AML Program is run in a cost efficient manner. The projects are completed with minimal disturbance to the environment and they include any necessary mitigation measures for the protection or enhancement of wetlands. Construction monitoring, post-construction monitoring, and maintenance processes ensure projects meet contract specifications, project objectives, and program goals. A bar chart entitled Iowa AML Reclamation Construction Plan is located in Appendix B. This chart illustrates the AML reclamation work planned and accomplished. Iowa's AML projects result in elimination of hazards to the public and restoration of beneficial land uses. Iowa continues to operate an excellent AML Program, and OSM acknowledges its accomplishments.

Regulatory Program

OSM previously approved Program Amendment IA-009-FOR on April 7, 1997, concerning underground coal mining subsidence requirements, and Program Amendment IA-011-FOR on November 6, 2002, concerning inspection.

OSM approved Program Amendment IA-013-FOR (Adoption by Reference of Applicable Portions of 30 CFR Part 700 to End as revised July 1, 2002) on June 1, 2004. Iowa's revised rules responded to all outstanding 30 CFR Part 732 letter requirements. It also included applicable parts of the rules that we had approved on April 7, 1997, and November 6, 2002.

OSM did add a new required amendment at 30 CFR 915.16(b). Section 915.16(b) provides that before Iowa implements regulation at IAC 27-40.41(207), Iowa has been informed they must revise Iowa Code section 207.4, subsection 1, paragraph d to include the changes that were made to section 507(c)(1) of SMCRA on November 5, 1990, and October 24, 1992.

As of August 3, 2004, Iowa had not adopted/promulgated the rules approved by OSM in IA-013-FOR. Iowa should complete this rulemaking.

IV. Success in Achieving the Purposes of SMCRA as Determined by Measuring and Reporting End Results

Individual topic reports that provide details on how the following evaluations and measurements were conducted are available at MCRCC in Alton, Illinois.

A. Offsite Impacts

No new offsite impacts occurred in Iowa during the EY 2004. All offsite impacts in Iowa are located at bond forfeiture sites. As bond forfeiture sites are reclaimed, it is expected that offsite impacts will be reduced. In EY 2003 there were 22 offsite impacts. Because of the reclamation of bond forfeiture sites, there was a reduction of 2 offsite impacts during EY 2004. (Table 4)

B. Reclamation Success

Directive REG-8, revised July 28, 1999, noted for Reclamation Success," that Success will be determined based on the number of acres that meet the bond release standards and have been released by the State." Successful reclamation includes achievement of approximate original contour, reestablishment of land capability, restoring hydrologic balance, and contemporaneous reclamation. Because the majority of inspectable units in Iowa are forfeited sites, very little of Iowa's disturbed acreage will actually undergo the bond release process.

The State has developed a plan for the timely elimination of bond forfeiture sites. Adherence to this plan is considered the major component of the State's program. A bar

chart entitled Iowa Bond Forfeiture Reclamation Schedule is located in Appendix A. This chart delineates the work accomplished and illustrates the goals of work to be done on a positive schedule.

American 7 construction is 95% complete.

American 8 construction is 65% complete.

American 3 OSMRE design has been received by the State and contracting is planned.

American 5 bid schedule will be initiated June 30, 2004.

Star 6 design and realty work was completed.

Star 11 surety performed minor soil erosion and terrace drain repairs. Release is planned.

Construction inspection priorities have resulted in slowing the pace of design and contracting. There are only 2.5 persons dedicated to field work related to Title V projects. However, it is estimated that the work is performed at nearly twice the rate of last year.

C. Abandoned Mine Land Reclamation

The review methodology consisted of comparing the proposed work to be accomplished in calendar year 2003 and 2004, as shown on Attachment 2 of the Performance Agreement, with the actual work accomplished. Meetings between Iowa and OSM were conducted in December 2003, January 2004, and June 2004.

The proposed AML work to be accomplished during the calendar year 2004 was to complete the bid process and begin the construction for McVay #3, Fowler, Jones, and Mitchell #2 (Appalachian Clean Streams Initiative (CSI)), and to complete construction on McVay #2, Mitchel #1 (CSI), East Marysville, and Bluff Creek projects. This work was completed as planned with the exception of Fowler, and Jones. These two projects were held pending resolution of the endangered Indiana Bat issues.

Iowa received \$1.5 million in Federal AML funds this evaluation year to run its regular AML Program. This is the minimum level of funding which OSM allots to any State reclamation program, regardless of coal tonnage mined. Due to Iowa's participation in the CSI the State also received \$172,359 in CSI funds from OSM. The State has received \$1,044,286 in accumulated CSI funds. The money is being used to reclaim a large abandoned mine site that is contributing acid mine drainage and sediment to Roberts Creek Lake. Reclamation work at the site has been ongoing for several years. Construction work was completed last year, but revegetation work continues.

The Iowa Department of Agriculture and Land Stewardship, in cooperation with the Marion County Conservation Board, the Marion County Soil and Water Conservation District, Marion County Pheasants Forever, local landowners, and the Army Corps of Engineers, recently completed a multi-year CSI project on the DeHeer site.



This site included approximately 90 acres of highly erosive, barren and acidic spoils that drain to Roberts Creek. Roberts Creek was dammed by the Corps of Engineers to form a narrow recreational lake covering about 420 acres. Runoff leaving the center of the project area had a very high turbidity, an iron content of greater than 100 mg/L, and a pH of 3.1. This resulted in a clogged stream problem to Roberts Creek and excessive acidic sediment deposition in Roberts Lake.



Today, the site has been graded, limed, and completely vegetated with a mixture of warm and cool season native grasses. A wetland measuring 2.5 acres has been created and seeded with Tartary Buckwheat, Cicer Milkvetch, Spike Rush and various *Carex* species.

Black Locust, Green Ash, Red Oak, Redbud, Eastern White Pine and Virginia Pine were planted in the spring of 2004. Wildlife is returning to this area, which remained in a useless state for about forty years. Runoff from the site no longer has the characteristic red color of acidic, iron-contaminated water. Sediment deposition in Roberts Creek has certainly been reduced; however, more reclamation work within the watershed is needed.

Also located in Iowa's Roberts Creek Watershed, the Mitchell AML Reclamation Project began in the fall of 2003. The Mitchell Project, a multi-year Clean Streams project, seeks to eliminate fifteen acres of clogged stream land, a dangerous impoundment, a vertical opening, highwalls and numerous other hazards. At the point where Mitchell drainage meets Roberts Creek, the channel dramatically degrades. The Roberts Creek channel has a well-established stream channel above this confluence. However at the confluence, the channel becomes clogged with silt and meanders through a marshy sediment-filled area. The first stage of the project (Mitchell #1) addressed the southern third and downstream end of the site. This project graded nine acres of spoil and clogged stream land, eliminated a vertical opening, and two highwalls. The acidic spoils were covered with six inches of higher quality clay material from an off-site location. A small pond was created, the site was seeded to a mixture of native grasses and trees were planted. Mitchell #1 was completed in the summer of 2004. Mitchell #2 will address a much larger portion of the site and will begin in the spring of 2005.

This year's Enhancement and Performance Review and reviews conducted in previous years have found that Iowa's AML Program is run in a cost efficient manner. The projects are completed with minimal disturbance to the environment, and they include any necessary mitigation measures for the protection or enhancement of wetlands. Construction monitoring, post-construction monitoring, and maintenance processes ensure projects meet contract specifications, project objectives, and program goals. Iowa's AML projects result in elimination of hazards to the public and restoration of beneficial land uses. Iowa operates an excellent AML Program, and OSM acknowledges its accomplishments.

V. OSM Assistance

The goal of OSM is to provide direct technical assistance to Iowa in all aspects of the Technical Innovation and Professional Services (TIPS), electronic permitting initiatives, Geographic Information System, Global Positioning System, and other spatial data technologies. OSM is also available to provide support for State symposia/conferences, topical seminars, workshops, interactive forums, specialized onsite training, and technology outreach programs.

During EY 2004, OSM provided Iowa with the following assistance:

Title IV Assistance

MCRCC provided assistance to Iowa's AML Program on various administrative issues including AML grant performance reporting and AML Inventory issues.

Title V Assistance

The OSM and IDSC staff cooperatively gathered information and then formulated reclamation design plans for the American Coals Corporation Mine #3 bond forfeiture site, and the Star Coal Co. Mine #6 bond forfeiture site prior to the end of EY 2004.

TIPS Assistance

OSM continues to support the TIPS software including installations, upgrades, updates, and patches.

VI. General Oversight Topic Reviews

Grants Review

In FY 2000, the State committed to timely submission of all grant documents. However, in that year and subsequent FY 2001 thru FY 2003, the Title V grants were not submitted in a timely manner. Grant Application GR 403193 was received timely by MCRCC on April 30, 2004. Iowa has addressed timely submission of grant documents in Evaluation Year 2004.

Appendix A: Iowa Bond Forfeiture Reclamation Schedule Comparison

**Appendix B: Tabular Summaries of Data Pertaining to
Mining, Reclamation and Program Administration**

Appendix C: State Comments on Report

Iowa reviewed but had no formal comments.