

OFFICE OF SURFACE MINING RECLAMATION AND ENFORCEMENT

Annual Evaluation Summary Report

for the

Regulatory

Program

Administered by the State

of

NORTH DAKOTA

for

Evaluation Year 1996

(January 1, 1996 to September 30, 1996)

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I. Introduction

The Surface Mining Control and Reclamation Act of 1977 (SMCRA) created the Office of Surface Mining Reclamation and Enforcement (OSM) in the Department of the Interior. SMCRA provides authority to OSM to oversee the implementation of and provide Federal funding for State regulatory programs that have been approved by OSM as meeting the minimum standards specified by SMCRA. This report contains summary information regarding the North Dakota Program and the effectiveness of the North Dakota program in meeting the applicable purposes of SMCRA as specified in section 102. This report covers the period of January 1, 1996 to September 30, 1996. Detailed background information and comprehensive reports for the program elements evaluated during the period are available for review and copying at the Casper Field Office.

Comments regarding the oversight process, recommendations for additional review topics, and suggestions for improvement of future reports are encouraged and should be submitted to the Director of the Casper Field Office.

Set forth below are the summary findings of the Director of OSM's Casper Field Office regarding the performance of North Dakota for the period January 1, 1996, through September 30, 1996. Detailed background information and comprehensive element-specific reports are available at the Casper Field Office.

The following list of acronyms are used in this report:

AML	Abandoned Mine Land
AMLR	Abandoned Mine Land Reclamation
AVS	Applicant Violator System
BTTI	Branch of Technical Training and Information
CFO	Casper Field Office
CO	Cessation Order
EY	Evaluation Year
MOU	Memorandum of Understanding
NDAC	North Dakota Administrative Code
NDCC	North Dakota Century Code
NOV	Notice of Violation
PSC	Public Service Commission, Reclamation Division
OSM	Office of Surface Mining Reclamation and Enforcement
RSI	Random Sample Inspections
SHPO	State Historic Preservation Office
SMCRA	Surface Mining Control and Reclamation Act of 1977
SPATS	State Program Amendment Tracking System
TDN	Ten Day Notice
TIPS	Technical Information Process System

II. Overview of the North Dakota Coal Mining Industry

The coal fields in North Dakota are located in the Williston Basin, which is part of the Great Plains Coal Province, and underlie approximately 40 percent of the State's surface area. Most of the coal is produced commercially from three mining districts located in the western part of the State: (1) Beulah-Zap, (2) Hagel, and (3) Harmon. Recoverable coal reserves in North Dakota are generally classified as lignite, which is characterized by low heating value (6,600 BTU), high moisture content (40 per cent) and low sulfur (less than 1.0 per cent). The minable beds in the Williston Basin vary in thickness from three to 30 feet; economic stripping ratios range from 1.5:1 to 11:1. All active mines in North Dakota are large-scale surface mines that provide coal for mine-mouth electrical generation facilities and a coal gasification facility.

The first commercial mine in North Dakota opened in Morton County in 1873. As the railroad developed across the State, demand for coal increased and was supplied by underground mines. North Dakota was one of the first states to shift from underground to large-scale commercial surface mining. By 1927, 40 per cent of the State's production was by surface mining methods, compared with 2 per cent for the nation. In 1959, 86 per cent of North Dakota's coal production was from surface mines, and since 1966, the State's total production has been from this mining method. In 1884, North Dakota produced 35 thousand tons of lignite; in 1995 it produced 30.2 million tons. North Dakota has a demonstrated coal reserve base of 9.82 billion tons (2 per cent of the U.S. base).

In 1969, North Dakota enacted its first reclamation law and followed in 1973 and 1975 with major revisions to this law. A new law was enacted in 1979 that is consistent with SMCRA. Coal mining in North Dakota is concentrated around the western half of the state. This area consists of approximately 28,000 square miles, and has an estimated total resource of 351,000,000 tons, or about two-thirds of the total lignite reserves of the United States.

North Dakota mines provide employment for approximately 1,200 people in five counties. However, the coal industry's impact on the State's people and economy is significantly greater since most of the State's coal production fuels its electric power generation plants.

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

State Program

The CFO has developed an outreach program where the public and industry have been encouraged to be involved in the oversight process. Specifically, the CFO initiated contacts with the Dakota Resource Council and the North Dakota Lignite Energy Council by phone and in person. The purpose of these contacts is to notify these groups of the CFO's activities and to provide an opportunity to express concerns regarding the CFO's oversight role and North Dakota's regulatory program. Copies of the proposed and final 1996 Oversight Plan were furnished to the Dakota Resource Council and the North Dakota Lignite Energy Council. As a result of the public meeting, changes were made in the 1996 oversight plan to reflect the concerns of the citizens living adjacent to the active mining operations in North Dakota. Also, the CFO met quarterly with the Dakota Resource Council during the 1996 oversight to discuss the ongoing oversight process and to solicit comments on the 1996 oversight.

As part of the CFO's outreach program prior to implementing the 1996 oversight plan, a public meeting was held and the CFO met individually with the Dakota Resource Council and the North Dakota Lignite Council. Approximately 40 individuals attended the public meeting.

North Dakota's outreach efforts include, but are not limited to, Public Service Commission hearings and meetings. The Public Service Commission has met with the Dakota Resource Council and interested citizens to discuss their concerns and issues. The Public Service Commission, Reclamation Division has public participation on a daily basis. With each action the Reclamation Division takes in its permitting and bond release process there are notices of the proposed actions published and comments solicited. Previous oversight reviews have found the Public Service Commission, Reclamation Division has been responsive to the public, citizen groups and industry.

IV. Major Accomplishments/Issues/Innovations in the (State) Program

The North Dakota Public Service Commission (PSC), the agency responsible for coal mine reclamation in the State, continues to perform in an exemplary fashion in implementing its regulatory program as set forth in Section 102 of the Surface Mining Control and Reclamation Act of 1977 (SMCRA).

During this evaluation period, the Casper Field Office (CFO) performed an extensive review of eight specific areas of North Dakota's approved state Regulatory program and three areas of Program Administration (Grants Management).

One of the most noteworthy aspects of the North Dakota Regulatory program has been

the pattern of excellence in mine land reclamation.

In 1990, the Glenharold mine received an Excellence in Surface Mining Reclamation award for their reclamation of woody draws. Two other mines, the Freedom and Indian Head received Excellence in Surface Mining Reclamation awards for 1992. The Freedom mine's award was for reclamation of wetlands, rangelands, and reestablishment of prime farmlands. The Indian Head mine's award was for designing the mining operation as to avoid the disturbance of woody draws. In 1994 the Falkirk mine received an Excellence in Surface Mining award for their efforts in mitigating the impacts of mining on the cultural and historical values found within the permit area.

With North Dakota's permanent regulatory program now in its sixteenth year of implementation, the PSC is anticipating an increased workload of bond release applications as more mines reach the point where reclamation efforts comply with all requirements necessary for release of bond or liability. The PSC has also shown its initiative and commitment to total reclamation of affected lands by using a four-stage bond release system. Each stage requires the operator to meet specific reclamation performance standards to ensure that reclamation be conducted in conformance with the approved reclamation plan.

Through effective implementation of permitting, inspection, and enforcement the PSC has been very successful in achieving compliance with SMCRA's intent.

CFO's evaluation of the overall reclamation in North Dakota is that reclamation is contemporaneous and complies with the performance standards in the state permanent regulatory program. The State administers an excellent Regulatory program. Various types of projects and problems have been addressed using technical expertise and professionalism.

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 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 in the Casper Field Office which provide additional details on how the following evaluations and measurements were conducted.

A. Off-Site Impacts: (Table 4 does not apply)

Landowners adjacent to two of the active mining operations have alleged that their farming operations have and are being affected by the mining operations. Specifically, that the timing and volume of water being discharged from the mining operations have prevented access to their cropland for the Fall 94 harvest, Spring 95 planting and Spring 96 planting. The alleged damage was loss of crop production. The State of North Dakota has required those companies to review and revise their PHC's and implement any necessary mitigation. The CFO has reviewed those PHCs and found them to be in accordance with the Approved State Program and SMCRA. The CFO is proposing to inspect those mines in the Spring of 1997 to evaluate the mitigation measures implemented by the mining companies.

The CFO had previously received a citizen's complaint alleging illegal disposal of hydrocarbon waste on a mine site that may or may have adversely affect the groundwater quality on and adjacent to the mine site. Field inspections did not find any evidence of improper waste disposal at this site. However, the CFO initiated a sampling and testing program in addition to the company's approved groundwater monitoring program. To date, this sampling and testing program has not detected any hydrocarbon in the spoils or groundwater.

In early 1995, officials from the city of Underwood raised concerns with the PSC on the possible effects that an adjacent mining operation had possibly affected the city's water supply wells. Some city residents later passed this concern on to the CFO. The PSC investigated this concern and determined that the water supply (quantity) has been slightly impacted by the mining operation. The CFO with the assistance of the WRCC reviewed the PSC's report on this matter. WRCC concluded the PSC conducted a through investigation and the conclusions were reasonable and sound. The mining company has agreed to replace the slight decrease in water production and is currently negotiating with the city of Underwood for reimbursement of higher operating costs.

B. Bond Release:

The CFO did evaluate the effectiveness of the State program based on the number of acres that have received bond release. Table 5 does not apply due to the type of mining operations, size of mining operation and company policy (not to apply for release until large tracts are eligible for final bond release). See optional Table 6 for a summary of the mining and reclamation activity in 1996. The CFO did not evaluate AOC, Land capability, Hydrologic reclamation or Contemporaneous reclamation, as these items have been evaluated in past oversight years with no significant problems identified. The CFO is proposing that some of these areas be revisited in the 1997 oversight.

VI. OSM Assistance

The Office of Surface Mining is providing both financial and technical support to the PSC in the form of an Administrative and Enforcement (A&E) and Abandoned Mine land (AML) grants. Technical support has been in the form of computers, software, assistance with the software and training (BTTI and TIPS).

VII. General Oversight Topic Reviews

A. Availability of Permit Records to the Public:

The CFO and PSC reviewed the mine permit files on record in Oliver and Mercer counties. It was determined that all required materials are being forwarded to the county auditor's office. However, most of these materials are being maintained at the county offices in a manner that renders them almost useless to the public. In some cases, particularly in Mercer county, these materials are maintained by company personnel and they were in a useable format for the public.

The PSC sent a letter to all mining companies encouraging them to periodically update the records they file with the county auditor's office. Companies operating active mines have voluntarily started to review, update and organize the permit records on file at the county auditor's offices to allow much better public access to the mine permit records.

B. Single Closed Channel Spillways:

The CFO and PSC reviewed selected sediment pond designs that contained plans for single closed channel spillways. All designs reviewed were as required by the approved State Program and SMCRA.

C. Groundwater Baseline Data Records:

The CFO and PSC reviewed selected mine permits for the premine data of residential water supply wells to determine what information is being collected and where it is recorded within the approved permit. The Beulah, Falkirk and Freedom mines have certified all wells for water quality and quantity in and around the permit area. The Center mine has not certified the wells in and around the permit area; however, the required information was otherwise provided in the permit application for the mine.

D. Water Replacement:

The CFO and PSC reviewed the all approved permits for the four active mining operations in North Dakota to complete an inventory of all water supply systems that have been or are proposed to be eliminated by the mining operations. This inventory will be completed in the 1997 oversight and used to determine which systems must be

replaced in the post mining reclamation.

E. Inspection:

The North Dakota Public Service Commission continues to conduct frequent and thorough inspections. North Dakota conducted 134 complete inspections and 451 partial inspections, exceeding the required number of inspections on all permits during the evaluation year. The Casper Field Office conducted 7 random sample inspections of coal mining operations in North Dakota.

The CFO's review of North Dakota inspection reports shows that reports are complete, accurately document site conditions and mine activity, give the status of any violations, and have continuity with previous reports. All performance standards were reviewed and documented during complete inspection and the reports contain a discussion of the current mine status. Each partial inspection report documents performance standards reviewed and permit requirements reviewed as well as those portions of the mine site inspected.

The PSC maintains an inspectable units list and a inspection data base sufficient to meet its program requirements.

F. Enforcement:

The PSC issued no Notices of Violation or Cessation Orders during this evaluation period. No pattern of violation exists. No show cause hearings or alternative enforcement actions were initiate during this evaluation period.

The CFO did not issue any enforcement actions (TDN, NOV, CO) during this review period.

G. Program Administration (Grants):

North Dakota submitted all AML financial reports on a timely basis. All reports were complete.

North Dakota agreed to report any overdrafts from the U. S. Treasury or any instances where excess cash was held as a result of drawdowns. CFO conducted a drawdown analysis sampling drawdowns occurring between January 1, 1996 and August 1, 1996. In all cases, expenditures occurred before the drawdown and the amount of the draw coincided with the amount of the expenditure.

In a single A-128 Audit completed for two years ending June 30, 1994, there was one finding where the Public Service Commission had paid unallowable overcharges for vehicle use from the State motor pool in the amount of \$1,875.20 for regulatory and enforcement purposes. The PSC paid back OSM this amount immediately and the finding is considered resolved. There are no other unresolved issues relative to previous A-128 Audits. Another A-128 Audit is being conducted for the period July 1, 1994 through June 30, 1996

APPENDIX A

Tabular Summaries of Data Pertaining to Mining, Reclamation and Program Administration

These tables present data pertinent to mining operations, State and Federal regulatory activities within North Dakota. They also summarize funding provided by OSM and North Dakota staffing. Unless otherwise specified, the reporting period for the data contained in all tables is the 1996 evaluation year (January 1, 1996 - September 30, 1996). Additional data used by OSM in its evaluation of North Dakota performance is available for review in the evaluation files maintained by the Casper Field Office.

TABLE 1

COAL PRODUCTION (Millions of short tons)			
Period	Surface mines	Underground mines	Total
Coal production ^A for entire State:			
1994	32.0	0.0	32.0
1995	30.2	0.0	30.2
1996 ^B	22.0	0.0	22.0

^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.

^B Coal production is not for a full year (January 1, 1996 to September 30, 1996)

TABLE 2

INSPECTABLE UNITS (As of September 30, 1996)												
Coal mines and related facilities	Number and status of permits								Insp. Unit^D	Permitted acreage^A (hundreds of acres)		
	Active or temporarily inactive		Inactive		Abandoned		Totals					
			Phase II bond release									
	IP	PP	IP	PP	IP	PP	IP	PP		IP	PP	Total
STATE and PRIVATE LANDS REGULATORY AUTHORITY: STATE												
Surface mines	0	34	6	4	0	0	6	38	NA	10.4	715.6	726.0
Underground mines	0	0	0	0	0	0	0	0	NA	0	0	0.0
Other facilities	0	0	0	0	0	0	0	0	0	0	0	0.0
Subtotals	0	34	6	4	0	0	6	38	0	10.4	715.6	726.0
FEDERAL LANDS REGULATORY AUTHORITY: STATE												
Surface mines	0	23	3	4	0	0	3	27	NA	0.9	97.4	98.3
Underground mines	0	0	0	0	0	0	0	0	NA	0	0	0.0
Other facilities	0	0	0	0	0	0	0	0	NA	0	0	0.0
Subtotals	0	23	3	4	0	0	3	27	0	0.9	97.4	98.3
ALL LANDS^B												
Surface mines	0	34	6	4	0	0	6	38	NA	10.4	715.6	726.0
Underground mines	0	0	0	0	0	0	0	0	0	0	0	0.0
Other facilities	0	0	0	0	0	0	0	0	0	0	0	0.0
Totals	0	34	6	4	0	0	6	38	0	10.4	715.6	726.0
Average number of permits per inspectable unit (excluding exploration sites)										1		
Average number of acres per inspectable unit (excluding exploration sites)										1,650		
Number of exploration permits on State and private lands:					5		On Federal lands:			0		
Number of exploration notices on State and private lands:					0		On Federal lands:			3		
IP: Initial regulatory program sites. PP: Permanent regulatory program sites. ^A When a unit is located on more than one type of land, includes only the acreage located on the indicated type of land. ^B Numbers of units may not equal the sum of the three preceding categories because a single inspectable unit may include lands in more than one of the preceding categories.												

^C Includes only exploration activities regulated by the State pursuant to a cooperative agreement with OSM or by OSM pursuant to a Federal lands program. Excludes exploration regulated by the Bureau of Land Management.

^D Inspectable Units includes multiple permits that have been grouped together as one unit for inspection frequency purposes by some State programs.

TABLE 3

STATE PERMITTING ACTIVITY

Type of application	Surface mines			Underground mines			Other facilities			Totals		
	App. Rec.	Issued	Acres	App. Rec.	Issued	Acres ^A	App. Rec.	Issued	Acres	App. Rec.	Issued	Acres
New permits	1	3	10,785	0	0	0	0	0	0	1	3	10,785
Renewals	3	6	10,843	0	0	0	0	0	0	3	6	10,843
Revised permit boundary revisions	0	3	1,886	0	0	0	0	0	0	0	3	1,886
Revisions (exclusive of revised permit boundary revisions)	27	27		0	0		0	0		27	27	
Transfers, sales and assignments of permits	0	0		0	0		0	0		0	0	
Full operator assistance	0	0		0	0		0	0		0	0	
Exploration permits	5	5		0	0		0	0		5	5	
Exploration notices ^B	0	0		0	0		0	0		0	0	
Totals	36	44	23,514	0	0	0	0	0	0	36	44	23,514

OPTIONAL - Number of midterm permit reviews completed that are not reported as revisions 0

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

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

TABLE 5

ANNUAL STATE MINING AND RECLAMATION RESULTS		
Bond release phase	Applicable performance standard	Acreage released during this evaluation period
Phase I	<ul style="list-style-type: none"> •Approximate original contour restored •Topsoil or approved alternative replaced 	0
Phase II	<ul style="list-style-type: none"> •Surface stability •Establishment of vegetation 	101
Phase III	<ul style="list-style-type: none"> •Post-mining land use/productivity restored •Successful permanent vegetation •Groundwater recharge, quality and quantity restored •Surface water quality and quantity restored 	135.00
	Total number of disturbed acres at end of last review period (December 31, 1995) ¹	34,850
	Total number of acres disturbed during this evaluation year	2,650*
	Number of acres disturbed during this evaluation year that are considered remining	0
<p>¹ Disturbed acres in this category are those that have not received a Phase III or other final bond release (State maintains jurisdiction).</p> <p>* Mine disturbances during this evaluation period were much higher than normal due to the development of three new mine areas at the Falkirk and Freedom Mines.</p>		

TABLE 6

The following information was obtained from annual maps and reports for certain activities that occurred in the calendar year 1995 and the overall status on January 1, 1996. (Data for calendar year 1996 will not be available until early 1997)

Acres disturbed by mining in 1995.....	1,615
Acres backfilled and graded in 1995.....	1,610
Acres topsoiled and seeded in 1995.....	1,875
Cumulative acres seeded on January 1, 1996.....	18,805
Total disturbed acres on January 1, 1996.....	34,850

The following table the premining and approved postmining land use for the new acreage that was permitted during the evaluation period.

Land Use Category	Premining Acres	Postmining Acres
Cropland	9,294	9,245
Native Grassland	2,535	2,658
Tame Pasture	170	126
Shelterbelts	57	55
Woodlands	70	70
Fish & Wildlife Habitat (Excluding Wetlands)	66	66
Wetlands	322	322
Industrial / Commercial	44	44
Public Roads	162	162
Stockponds	13	13
Residential (farmsteads)	59	31
TOTAL ACRES	12,792	12,792

TABLE 7

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**STATE BOND FORFEITURE ACTIVITY
(Permanent Program Permits)**

	Sites	Dollars	Acres
Bonds forfeited as of January 1, 1996 ^A	0	\$0	0
Bonds forfeited during EY 1996	0	\$0	0
Forfeited bonds collected as January 1, 1996 ^A	0	\$0	0
Forfeited bonds collected during EY 1996	0	\$0	0
Forfeiture sites reclaimed during EY 1996	0	B	0
Forfeiture sites repermited during EY 1996	0		0
Forfeiture sites unreclaimed as of September 30, 1996	0		0
Excess reclamation costs recovered from permittee	0	\$0	0
Excess forfeiture proceeds returned to permittee	0	\$0	0

^A Includes data only for those forfeiture sites not fully reclaimed as of this date.

^B Cost of reclamation, excluding general administrative expenses.

TABLE 8

STATE REGULATORY PROGRAM STAFFING (Full-time equivalents at end of evaluation year)	
Function	EY 1996
Regulatory program	
Permit review	4.27
Inspection.....	2.73
Other (administrative, fiscal, personnel, etc.).....	2.7

TABLE 9

REGULATORY FUNDS GRANTED TO STATE BY OSM (Millions of dollars)		
Type of grant	Federal funds awarded	Federal funding as a percentage of total program costs
Administration and enforcement	\$510,000.00	73.0
Small operator assistance	\$0	0.0
Totals	\$510,000.00	