

OLENE S. WALKER  
*Governor*

GAYLE F. McKEACHNIE  
*Lieutenant Governor*

January 12, 2004

John A. Gefferth, Environmental Engineer  
Consolidation Coal Company  
P.O. Box 566  
Sesser, Illinois 62884

Re: Results of the Midterm Permit Review, Consolidation Coal Company, Emery Deep Mine, C/015/0015, Task ID #1782, Outgoing File

Dear Mr. Gefferth:

The Division has completed a final Midterm Permit Review of the Emery Deep Mine facility as required by R645-303-211.

Sufficient information has been submitted to address the Midterm review process. The results of the review are contained in the enclosed review document.

A complete copy of the MRP should be maintained at the minesite.

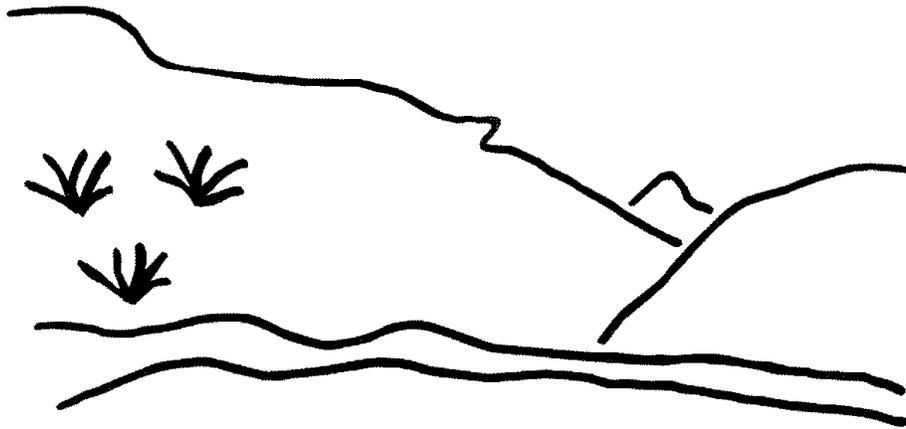
This concludes the Midterm Review for the Emery Deep Mine. Thank you for your help during this process.

Sincerely,

Daron R. Haddock  
Permit Supervisor

an  
Enclosure:  
cc: Price Field Office  
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# State of Utah



## Utah Oil Gas and Mining

### Coal Regulatory Program

Emery Deep Mine  
Midterm Review  
C/015/0015, Task ID #1782  
Technical Analysis  
January 6, 2004





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TECHNICAL ANALYSIS

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## TECHNICAL ANALYSIS

The Division ensures compliance with the Surface Mining Control and Reclamation Act of 1977(SMCRA). When mines submit a Permit Application Package or an amendment to their Mining and Reclamation Plan, the Division reviews the proposal for conformance to the R645-Coal Mining Rules. This Technical Analysis is such a review. Regardless of these analyses, the permittee must comply with the minimum regulatory requirements as established by SMCRA.

Readers of this document must be aware that the regulatory requirements are included by reference. A complete and current copy of these regulations and a copy of the Technical Analysis and Findings Review Guide can be found at <http://ogm.utah.gov/coal>

This Technical Analysis (TA) is written as part of the permit review process. It documents the Findings that the Division has made to date regarding the application for a permit and is the basis for permitting decisions with regard to the application. The TA is broken down into logical section headings, which comprise the necessary components of an application. Each section is analyzed and specific findings are then provided which indicate whether or not the application is in compliance with the requirements.

Often the first technical review of an application finds that the application contains some deficiencies. The deficiencies are discussed in the body of the TA and are identified by a regulatory reference, which describes the minimum requirements. In this Technical Analysis we have summarized the deficiencies at the beginning of the document to aid in responding to them. Once all of the deficiencies have been adequately addressed, the TA will be considered final for the permitting action.

It may be that not every topic or regulatory requirement is discussed in this version of the TA. Generally only those sections are analyzed that pertain to a particular permitting action. TA's may have been completed previously and the revised information has not altered the original findings. Those sections that are not discussed in this document are generally considered to be in compliance.



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## INTRODUCTION

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## INTRODUCTION

On September 16, 2003 by way of correspondence, the Division notified Consolidation Coal Company of its intent to conduct a Midterm review of the Emery Deep Mine.

The following items were chosen for review:

1. An AVS check to ensure that Ownership and Control information is current and correct.
2. A review to ensure that the Plan has been updated to reflect changes in the Utah Coal Regulatory Program, which have occurred subsequent to permit approval (One area of emphasis is to ensure compliance with the U. S. Fish and Wildlife Windy Gap Process).
3. A review of the plan to ensure that the requirements of all permit conditions, division orders, notice of violation abatement plans, and permittee initiated plan changes are appropriately incorporated into the plan document.
4. A review of the applicable portions of the permit to ensure that the plan contains commitments for application of the best technology currently available (BTCA) to prevent additional contributions of suspended solids to stream flows outside of the permit area.
5. A review of the bond to ensure that it is in order and that the cost estimate is accurate and is escalated to the appropriate year dollars
6. The Division may conduct a technical site visit in conjunction with the assigned compliance inspector to document the status and effectiveness of operational, reclamation, and contemporaneous reclamation practices.”

Division representatives conducted a site visit on October 23, 2003. No issues were identified relating to the review checklist.

The Emery Deep Mine is permitted and operated by Consolidation Coal Company. Mining is being conducted in the coal seam of the Ferron Sandstone.



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**GENERAL CONTENTS**

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## **GENERAL CONTENTS**

### **IDENTIFICATION OF INTERESTS**

Regulatory Reference: 30 CFR 773.22; 30 CFR 778.13; R645-301-112

#### **Analysis:**

The updated ownership and control information was submitted on September 12, 2003, page 6 (replacement page) for Chapter I of the is in Appendix I-1 of the Mining and Reclamation Plan (MRP). As part of the amendment to abate N03-39-1-1, the Permittee provided updated ownership information.

Consol Energy is currently in the process of selling the Emery Deep Mine to C&P Coal Company. C&P has filed a request for transfer of the permit.

#### **Findings:**

The information provided by the Applicant meets the minimum requirements for the Identification Section of the regulations.

### **VIOLATION INFORMATION**

Regulatory Reference: 30 CFR 773.15(b); 30 CFR 773.23; 30 CFR 778.14; R645-300-132; R645-301-113

#### **Analysis:**

The Division issued a notice of violation (NOV) to the Emery Deep Mine on January 9, 2003 for allowing coal fines to blow onto the undisturbed area (N03-39-1-1). The Permittee is still working on the abatement for the NOV. The Division recently extended the abatement deadline to October 31. The current Permittee (Consol Energy) has committed to complete the abatement, even if the sale goes through before it is finished. The abatement plan calls for the addition of a wind fence, placing jersey barriers between the coal pile and road, re-routing the road, installation of a cattle guard where fines can fall out of wheels before leaving the property, and water cannons to spray the coal pile when winds are high.

The notice of violation, N03-39-1-1 was abated on November 5, 2003.

**Findings:**

The information provided on page 6 meets the minimum requirements for the Violation Information Section of the regulations.

**SPECIAL CONDITIONS OR STIPULATIONS TO THE PERMIT  
APPROVAL**

Regulatory References: 30 CFR773.17; R645-300-140; R645-300-145.

**Analysis:**

The Division issued the current permit on February 8, 2001. It expires February 8, 2006. There is one stipulation attached to the permit, that Consolidation Coal Company submit water monitoring data for the mine **electronically** through the Division's Electronic Data Input (EDI) page at <http://linux1.ogm.utah.gov/cgi-bin/appx-ogm.cgi>. The Permittee has complied with the stipulation.

**Findings:**

The Permittee has complied with the Special Conditions or Stipulations to the Permit Approval section of the regulations.

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**OPERATION PLAN**

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## **OPERATION PLAN**

A Division Order (DO) was issued on March 27, 2003 requiring Consolidation Coal Company (Consol) to update the Probable Hydrologic Consequences (PHC) section of their Emery Deep Mine, Mining and Reclamation Plan (MRP). Division received an update to Consolidation Coal Company's PHC on August 18, 2003. The update describes changes to the hydrologic regime between the years, 1990 to 2002. The information presented by Consol and subsequent review concluded that changes to the underground hydrologic conditions have not changed during the time the mine was idle. Continued pumping during the shutdown period did not allow aquifers to rebound. Shallow alluvial aquifers in Quitchupah and Muddy creeks did not show drawdown, but reflect the current streamflow in the channel. The PHC update was determined complete on October 14, 2003.

## **HYDROLOGIC INFORMATION**

Regulatory Reference: 30 CFR Sec. 773.17, 774.13, 784.14, 784.16, 784.29, 817.41, 817.42, 817.43, 817.45, 817.49, 817.56, 817.57; R645-300-140, -300-141, -300-142, -300-143, -300-144, -300-145, -300-146, -300-147, -300-147, -300-148, -301-512, -301-514, -301-521, -301-531, -301-532, -301-533, -301-536, -301-542, -301-720, -301-731, -301-732, -301-733, -301-742, -301-743, -301-750, -301-761, -301-764.

### **Analysis:**

#### **Sediment Control Measures**

The applicant has submitted information in the MRP describing structures and methods to contain and control sediment on the minesite. The same structures will prevent sediment from leaving the minesite. A combination of the best management practices (BMPs) have been implemented at both the 4<sup>th</sup> East Portal and at the main minesite. Berms, ditches and culverts have been designed to divert undisturbed area flows away from the disturbed areas and direct disturbed area flows to sediment ponds and silt fences for treatment. The combination of sedimentation ponds and silt fences treat the disturbed area runoff before it leaves the disturbed areas. Any water leaving the minesite must comply with State and federal water quality standards under the National Pollutant Discharge Elimination System.

Sediment control structures will remain in place to treat disturbed area runoff throughout the operational and reclamation process. Bond release occurs in three phases. Surface water management, which includes overland flow, sediment control and alternate sediment controls is described in Chapter VI 1-2. Drainage ditch design sedimentation pond design and alternate sediment control designs are in Chapter VI 2-2, appendices VI-6, VI-7 and VI-8. The permittee has planned to contain runoff on both sites through Phase 2 using a combination of

sedimentation ponds, silt fences, soil roughening, vegetation growth and straw bales. Silt fences, straw bales, soil roughening and vegetation growth will be used over an addition period, until the permittee can show that additional sediment is not contributed to the streams from the disturbed areas.

### **Probable Hydrologic Consequences Determination**

A Division Order (DO) was issued on March 27, 2003 requiring Consolidation Coal Company (Consol) to update the Probable Hydrologic Consequences (PHC) section of their Emery Deep Mine, Mining and Reclamation Plan (MRP). Division received an update to Consolidation Coal Company's PHC on August 18, 2003. The update describes changes to the hydrologic regime between the years, 1990 to 2002. The information presented by Consol and subsequent review concluded that changes to the underground hydrologic conditions have not changed during the time the mine was idle. Continued pumping during the shutdown period did not allow aquifers to rebound, nor did it draw down the water tables in the aquifers substantially after 1993. Shallow alluvial aquifers in Quitchupah and Muddy creeks did not show drawdown, but reflect the current streamflow in the channel. The PHC update was determined complete on October 17, 2003.

### **Findings:**

The permittee has submitted sufficient information to update the Probable Hydrologic Consequences Determination in the Hydrologic Resource Information section of the MRP. The Division Order was found complete on October 17, 2003.

## **FISH AND WILDLIFE INFORMATION**

Regulatory Reference: 30 CFR Sec. 784.21, 817.97; R645-301-322, -301-333, -301-342, -301-358.

### **Analysis:**

The Division is required to review each active permit during its term, in accordance with R645-303-211. A Midterm Review takes place at the midpoint of the permit term (July 7, 2003 for the Emery Deep Mine) and covers pertinent elements. The Division is currently conducting the Midterm Review for the Emery Deep Mine. The pertinent element chosen for review that focuses on biology is the following:

### **Wetlands and Habitats of Unusually High Value for Fish and Wildlife**

Adverse effects of mining on water quantity to the Colorado River drainages do affect four Colorado River endangered fish species (Colorado pikeminnow, humpback chub, bonytail chub,

**OPERATION PLAN**

and razorback sucker). The USFWS considers water depletion to the Colorado River drainage as a potential jeopardy to these endangered fish. Water users may be required to mitigate if the overall water consumption is greater than 100 acre-feet per year.

The Permittee is required to address possible adverse affects to these four fish species by first calculating the amount of water used by all mining operations and explorations. The “Windy Gap Process” provides a guideline of parameters necessary to calculate overall water consumption for coal mines. This “process” provides descriptions of equation parameters and guidelines for coal operators to follow. The Permittee submitted the following values for the Windy Gap parameters in December of 2003:

Parameter	Acre-ft/yr	Permittee Comments
Mining consumption	0	
Ventilation consumption	0	
Coal producing consumption	0	
Ventilation evaporation	Approx. 25	There is no data currently available to calculate the loss due to ventilation. With the fan returning approximately 218,000 CFM, this could evaporate approximately 25 ac-ft per year. This amount will vary based on the volume of air returned from the mine, the barometric conditions of the mine air and the barometric conditions of the outside air, as well as temperature of both.
Sediment pond evaporation		Water entering the sediment ponds is stored long enough to allow the accumulated sediment to drop out. The water is allowed to discharge into the receiving stream. This would not be considered a consumptive mechanism.
Springs and seep effects from subsidence		There have been no reports of seeps from subsidence.
Alluvial aquifer abstractions into mines	0	There are no water infiltrations from alluvial systems into the mine.
Alluvial well pumpage	0	There is zero pumpage from alluvial wells.
Deep aquifer pumpage	0	There is zero pumpage from deep aquifer wells.
Postmining inflow to workings	0	There is zero post mining inflow to the old workings.
Coal moisture loss	3.6	The inherent moisture in the Emery coal is approximately

**OPERATION PLAN**

		4 %. The as received moisture of the coal is approximately 6 %. The Emery Mine produced 243,153 tons of coal in 2003. Using these values, the consumption was approximately 3 .6 ac-ft in 2002.
Direct diversions.	0	There are no direct diversions at the Emery mine therefore zero consumption.

The total loss to the Colorado River Basin approximates 28.6, not 26.6 as written in the Permittee's response letter. The Permittee also submitted the total gain to the Basin as 420 acre-feet of water per year, which could have a negative impact to the basin. The USFWS agrees with the Division that the loss and gain of water to the Basin are minimal and should not have a negative impact to the four endangered fish of the Colorado River (USFWS 12/23/2003; personal communications).

The Division reminds the Permittee that any significant modification to the mine plan will require new calculations showing water loss and gain.

**Findings:**

The Permittee did not calculate the value of water from the "Mining consumption" parameter accurately or provide equations as requested. The Division, however, considers the information adequate to meet the minimum Fish and Wildlife Information section of the Operation Plan regulations. This decision is because the total consumption value is low and the corrected value from the "Mining consumption" parameter will not significantly change the total.

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**RECLAMATION PLAN**

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## **RECLAMATION PLAN**

### **BONDING AND INSURANCE REQUIREMENTS**

Regulatory Reference: 30 CFR Sec. 800; R645-301-800, et seq.

#### **Analysis:**

##### **Determination of Bond Amount**

As part of the midterm review, the Division evaluates the reclamation cost estimate and bond amount. The Division now escalates the reclamation cost estimate from midterm of permit issuance to midterm of consecutive permit issuance. Therefore, the reclamation cost estimate likely will be increased as part of this midterm review.

The current bond amount is \$3,454,443. The reclamation cost estimate escalated for five years is \$2,208,000. The reasons why the bond amount is higher than the reclamation cost estimate are: 1) the bond amount was based on several expansion projects that have since been cancelled, and 2) the Permittee had a one time payment bond, so decreasing the bond was not in the Permittee's best interest.

The bond amount is adequate to insure reclamation of the site should the Permittee forfeit the bond. No change to the bond amount is required at this time.

#### **Findings:**

The Bond information in the MRP is adequate to meet the minimum requirements of the regulations.