

# TECHNICAL MEMORANDUM

Utah Coal Regulatory Program

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December 9, 2003

TO: Internal File

THRU: Priscilla Burton, Team Lead

FROM: Wayne Western, Environmental Scientist III, engineering.

RE: The East Portal (abatement to N03-39-1-1), Consolidation Coal Company, Emery Deep, C/015/0015, Task ID #1762

## **SUMMARY:**

In January 2003, the Permittee received a Notice of Violation for allowing coal fines to blow outside of the disturbed area boundaries. The Division received a response to the NOV in NOV in April 2003. The Permittee implemented many of the mitigation measures listed in that amendment but the efforts were not effective.

The Permittee submitted, in September 2003, a second dust control plan in response to the NOV. The dust control plan includes wind fences, watering devices, crusher replacement, operation enclosures, and maintenance plans. The plan also includes relocating the haul truck route within a 1.5-acre area expansion site located east of the existing disturbed and permit boundary.

The Division received a third submittal on October 31, 2003. This memo covers the issues in that submittal. The only deficiency involved bond calculations.

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**TECHNICAL ANALYSIS:**

**ENVIRONMENTAL RESOURCE INFORMATION**

Regulatory Reference: Pub. L 95-87 Sections 507(b), 508(a), and 516(b); 30 CFR 783., et. al.

**PERMIT AREA**

Regulatory Requirements: 30 CFR 783.12; R645-301-521.

**Analysis:**

The Permittee will add 1.5 acres to the permit area of which 1.0 acre will be disturbed. The pre-disturbed contours are shown on Plate III-5, 4<sup>th</sup> East Portal Site Pre & Postmining Topography Plane View. The map is adequate to show the addition of the 1.5 acres at the 4<sup>th</sup> East Portal site.

The Permittee also updated the Permit Boundaries Map, Plate III-9. That map shows the entire permit boundary. In addition, Plate III-9 shows surface areas affected by date.

**Findings:**

The information provided in the amendment is considered adequate to meet the minimum requirements of this section of the regulations.

**MAPS, PLANS, AND CROSS SECTIONS OF RESOURCE INFORMATION**

Regulatory Reference: 30 CFR 783.24, 783.25; R645-301-323, -301-411, -301-521, -301-622, -301-722, -301-731.

**Analysis:**

**Affected Area Boundary Maps**

The Permittee shows the location of future expansion of the mine workings on the operational maps. Other than a change in the permit boundary, those maps will not be affected.

### **Existing Structures and Facilities Maps**

There are no existing structures or facilities in the permit expansion area.

### **Existing Surface Configuration Maps**

Plate IV-3b sheet 1 of 2 and 2 of 2 the pre and post mining topography for the 4<sup>th</sup> East Portal area. The map scale is 1 inch equals 100 feet. The scale is adequate for the Division to use to assess the pre-mining conditions. In addition, Plate III-5 is not certified as required by the regulations.

### **Mine Workings Maps**

There are no changes to the mine working areas.

### **Permit Area Boundary Maps**

The Permittee showed the location of the addition permit and disturbed area on Plate III-9.

### **Findings:**

Information provided in the amendment is considered adequate to meet the minimum requirements of this section of the regulations.

## **OPERATION PLAN**

### **MINING OPERATIONS AND FACILITIES**

Regulatory Reference: 30 CFR 784.2, 784.11; R645-301-231, -301-526, -301-528.

### **Analysis:**

The Permittee submitted this amendment in response to a violation for allowing coal fines to blow outside of the disturbed area. The Permittee has developed a plan to control coal fines by modifying existing structures and adding new ones as follows:

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- Modify the topsoil stockpile and berm
- Add an access/haul road
- Jersey barriers
- Wind fence
- Water Cannon
- Cattle guard

The topsoil stockpile and berm modification is designed to store topsoil. The issues related to the stockpile will be discussed in detail in the soils and hydrology section of the TA. The addition of the access/haul road should be simple if the Permittee follows the existing designs.

The addition of the additional features is for control of the coal fines. The Division does not have the expertise to evaluate the effectiveness of those structures to control windblown coal fines. If those structures prove to be inadequate, the Permittee has committed to add additional structures.

**Findings:**

The information provided in the amendment is adequate to meet the minimum requirements of the regulations.

**EXISTING STRUCTURES:**

Regulatory Reference: 30 CFR 784.12; R645-301-526.

**Analysis:**

There are no existing structures within the area that the Permittee wants to add to the disturbed area.

**Findings:**

The information provided in the amendment is adequate to meet the minimum requirements of the regulations.

**RELOCATION OR USE OF PUBLIC ROADS**

Regulatory Reference: 30 CFR 784.18; R645-301-521, -301-526.

**Analysis:**

The Permittee does not propose to relocate or use a public road within the disturbed area. The Permittee does propose to add a mine access/haul road that will join the county road know as "Cowboy Mine Road No.915 as shown on Plate IV-3b.

The Permittee does propose to extend the disturbed area so that disturbed area will be adjacent to part of the Cowboy Mine Road. The strip of land to be added to the disturbed area is triangular in shape and 490 feet long. The north 260 feet of the proposed disturbed area is already within 100 feet of the county road.

The only activities scheduled for construction in the newly disturbed area are: salvaging topsoil, removing coal fines, and reclaiming the area during final reclamation. The Permittee has already made a commitment to use flagman during activities that are within 100 feet of a public road. The Division believes that procedure is adequate to protect the public.

The Permittee has obtained the necessary permits to construct the turnoff and conduct mining within 100 feet of a public road.

**Findings:**

The information provided in the amendment is adequate to meet the minimum requirements of this section of the regulations.

**SUBSIDENCE CONTROL PLAN**

Regulatory Reference: 30 CFR 784.20, 817.121, 817.122; R645-301-521, -301-525, -301-724.

**Analysis:**

**Subsidence Control Plan**

The new permit and disturbed area are outside the subsidence limits. Therefore, the subsidence plan does not have to be modified.

**Findings:**

The information provided in the amendment meets the minimum regulatory requirements of this section of the regulations.

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## ROAD SYSTEMS AND OTHER TRANSPORTATION FACILITIES

Regulatory Reference: 30 CFR Sec. 784.24, 817.150, 817.151; R645-301-521, -301-527, -301-534, -301-732.

### Analysis:

#### Road Classification System

The Permittee has classified the new section of the coal loadout road as primary. This is consistent with the regulation for road classification and the existing plan.

#### Plans and Drawings

The Permittee has shown the addition to the coal loadout road on several maps including Plate IV-3b. The Permittee did not show any new road designs. The Division assumes that the Permittee will use the existing road designs.

Appendix X. C-3, prepared by Norwest, show a typical cross-section for the new haul road. The cross-section was not certified but is similar to the current road configuration.

#### Performance Standards

The Permittee will be required to keep all performance standards.

#### Primary Road Certification

The location of the new haul road is shown on several maps that have been certified, including Plate II-3, 4<sup>th</sup> East Portal Surface Facilities. The typical cross-sections for the road are shown in the MRP.

#### Other Transportation Facilities

The Permittee does not propose to change the basis layout for the conveyor system. They do propose to replace the existing crusher with a roller crusher to reduce dust and to enclose the transfer point. Those changes are stated in the text but would not show up on the maps.

### Findings:

The information provided in this amendment is adequate to meet the minimum requirements of this section of the regulations.

## SPOIL AND WASTE MATERIALS

Regulatory Reference: 30 CFR Sec. 701.5, 784.19, 784.25, 817.71, 817.72, 817.73, 817.74, 817.81, 817.83, 817.84, 817.87, 817.89; R645-100-200, -301-210, -301-211, -301-212, -301-412, -301-512, -301-513, -301-514, -301-521, -301-526, -301-528, -301-535, -301-536, -301-542, -301-553, -301-745, -301-746, -301-747.

### Analysis:

The Permittee does not propose to change how waste materials are handled. There will be no spoil produced because of the addition of the 1.5 acres.

### Findings:

The Permittee has met the minimum requirements for this section of the regulations.

## SUPPORT FACILITIES AND UTILITY INSTALLATIONS

Regulatory Reference: 30 CFR Sec. 784.30, 817.180, 817.181; R645-301-526.

### Analysis:

The Permittee will add the following facilities to the 4<sup>th</sup> East Portal area:

- Jersey barriers - keep the coal within the storage areas.
- Wind fence - should reduce the wind speeds and the coal particles that become windborne.
- Water cannon - reduce the amount of coal particles that become windborne.
- Cattle guard - reduce the amount of coal that is spread by truck tires, by removing the material from the tires.

In addition to those facilities, the Permittee will replace the crusher with a double-roller or other type of non-pulverizing device. The new crusher should reduce the amount of coal fines that are created.

Those facilities might eliminate coal fines from leaving the permit boundaries. The Division does not have the resources to determine if those facilities will prevent coal fines from leaving the permit area. If those facilities are inadequate then the Permittee will install additional facilities.

The surface facilities are shown on several maps including Plate II-3, 4<sup>th</sup> East Portal Surface Facilities, including the location of the Jersey barriers and the water cannons.

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**Findings:**

The information in the amendment is considerate adequate to meet the minimum requirements of this section of the regulations.

**MAPS, PLANS, AND CROSS SECTIONS OF MINING OPERATIONS**

Regulatory Reference: 30 CFR Sec. 784.23; R645-301-512, -301-521, -301-542, -301-632, -301-731, -302-323.

**Analysis:**

**Affected Area Maps**

The affected area is the permit area plus any additional areas that the Permittee, Consolidation Coal Company, plans of permitting in the future. The permit was been or will be transferred. Therefore, the issue of future expansion areas is mute. The permit area will be considered the affected area at this time.

**Mining Facilities Maps**

The Permittee shows the new facilities on Plate II-3.

**Mine Workings Maps**

No changes will be made to the mine workings maps because of this amendment.

**Certification Requirements**

All appropriate maps have been certified.

**Findings:**

The information in the amendment is considerate adequate to meet the minimum requirements of this section of the regulations.

## RECLAMATION PLAN

### APPROXIMATE ORIGINAL CONTOUR RESTORATION

Regulatory Reference: 30 CFR Sec. 784.15, 785.16, 817.102, 817.107, 817.133; R645-301-234, -301-412, -301-413, -301-512, -301-531, -301-533, -301-553, -301-536, -301-542, -301-731, -301-732, -301-733, -301-764.

#### **Analysis:**

On Plate III-5, 4<sup>th</sup> East Portal Site Pre & Postmining Topography Plan View, the Permittee shows the postmining contours. The map scale is 1 inch equals 200 feet. Because of the scale, the Division is unable to make a complete evaluation of the reclamation plan for the 1.5-acre addition.

The information on Plate III-5 shows that the pre and postmining topography will be similar. The existing topography is flat and the Permittee proposes to restore the area to the approximate pre-mining conditions.

The Division requires that the Permittee include maps of the pre and post-mining topography that are at a scale of 1 inch equals 100 feet or larger in other sections of the TA. To prevent redundancy on deficiencies the Division address that issue in another section. If the new maps show that a problem exist the Division will address the issue at that time.

Spoil piles and highwalls will not be located on the 1.5-acre addition. Restoring the hydrology of the area for AOC purposes will be met if the Permittee can demonstrate that all hydrology issues have been addressed.

The Division did a complete evaluation of how the site would be reclaimed to AOC during the initial approval for the 4<sup>th</sup> East Portals. The addition of the 1.5 acres of which 1.0 acre will be disturbed is a minor adjustment to the reclamation plan that should not affect the Permittee's ability to restore the complete site to AOC.

#### **Findings:**

The Permittee has met the minimum requirements of this section of the regulations.

## BACKFILLING AND GRADING

Regulatory Reference: 30 CFR Sec. 785.15, 817.102, 817.107; R645-301-234, -301-537, -301-552, -301-553, -302-230, -302-231, -302-232, -302-233.

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**Analysis:**

**General**

The Division did a complete analysis of the backfilling and grading plan during the initial permitting of the 4<sup>th</sup> East Portal area. The addition of 1.5 acres of which 1.0 acre will be disturbed will not alter the overall backfilling and grading plan.

The backfilling and grading plan calls for the 1.0-acre area to be restored to the topography that existed before disturbance. The main reclamation activities for the site will be road removal and topsoil placement. Those issues will be address in other sections of the TA.

**Previously Mined Areas**

No previously mined areas exist within the 1.5-acre addition. Note: this section has to do with highwalls and no highwalls are associated with this area of the 4<sup>th</sup> East Portal facility.

**Findings:**

The information given in the amendment meets the minimum requirements of this section of the regulations.

**ROAD SYSTEMS AND OTHER TRANSPORTATION FACILITIES**

Regulatory Reference: 30 CFR Sec. 701.5, 784.24, 817.150, 817.151; R645-100-200, -301-513, -301-521, -301-527, -301-534, -301-537, -301-732.

**Analysis:**

**Reclamation**

The Permittee did not specifically address the reclamation of the road and cattle guard in the amendment. In the MRP, the Permittee committed to remove all roads and associated structures. The postmining maps show that the road and other structures will be removed. The Division believes that information is adequate to determine that the new access road will be removed and reclaimed according to the approved plan.

**Retention**

The Permittee does not propose to retain any roads associated with the 1.5-acre addition.

### **Findings:**

The information given in the amendment is adequate to meet the minimum requirements of this section of the regulations.

## **MAPS, PLANS, AND CROSS SECTIONS OF RECLAMATION OPERATIONS**

Regulatory Reference: 30 CFR Sec. 784.23; R645-301-323, -301-512, -301-521, -301-542, -301-632, -301-731.

### **Analysis:**

#### **Bonded Area Map**

The bonded area is considered by the Division to be the same as the disturbed area for the 4<sup>th</sup> East Portal facilities. That area is shown on several maps including Plate II-3.

#### **Reclamation Backfilling And Grading Maps**

The Permittee update the backfilling and grading cross-sections so that they show the additional 1.0-acres of disturbed area.

#### **Reclamation Facilities Maps**

No facilities that will be retained after reclamation is finished.

#### **Final Surface Configuration Maps**

The final surface configuration is shown on Plate III-5, 4<sup>th</sup> East Portal Site Pre & Postmining Topography Plan View. The map's scale is adequate for the Division to evaluate the final surface configuration.

#### **Certification Requirements.**

All reclamation maps that need to be certified have been by a registered professional engineer.

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**Findings:**

The information in the submittal is adequate to meet the minimum requirements of this section of the regulations.

**BONDING AND INSURANCE REQUIREMENTS**

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

**Analysis:**

**Determination of Bond Amount**

The Division reviewed the bond calculation worksheets and found that the following items need to be clarified:

- Worksheet 5 page A-7a, the calculations were used to determine the time needed for two activities 1) boxcut -5% at 200 feet and 2) ventilation shaft and sediment pond at +2% grade and distance of 100 feet. Since the productivity for a dozer is much different for pushing material 200 feet than 100 feet, the Permittee must show two calculations.
- Worksheet 8 page A-10, the calculations used to determine truck haulage time assume that the trucks will be going on the same grade for each job. The boxcut is 100 feet in depth while the other activities are on level ground. Since the productivity of a truck is a function of grade, the Permittee must give the Division calculations for each type of haul situation.
- On page A-4, the equipment for reclaiming the boxcut includes a loader, trucks and a compactor. On page A-5, the equipment list includes a dozer. The equipment list must be the same.

The Division needs those issues clarified before they can calculate the bond.

**Findings:**

The information in the submittal is not adequate to meet the minimum requirements of this section of the regulations. Before the amendment can be approved, the Permittee must give the Division the following in accordance with:

**R645-301-830.130 and R645-301-830.140**, The Permittee must clarify the point outline in this section of the TA as they pertain to productivity and equipment selection.

**RECOMMENDATIONS:**

The Division should deny the amendment until the Permittee has addressed all the deficiencies in the technical analysis.

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