

# TECHNICAL MEMORANDUM

Utah Coal Regulatory Program

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July 17, 2008

off

TO: Internal File

THRU: James D. Smith, Permit Supervisor *DS 07/20/08*  
Steve Christensen, Team Lead *SKC*

FROM: Wayne H. Western, Environmental Scientist III *WHW*

RE: East Mountain Emergency Drill Hole Reclamation Plan, Task ID #3013, Genwal Resources, Inc., Crandall Canyon Mine, C/015/0032

## SUMMARY:

On July 17, 2008, the Division received an application from Genwall Resources, which addressed the reclamation of the emergency drill pads constructed in an effort to rescue six trapped miners in the Crandall Canyon Mine.

## TECHNICAL ANALYSIS:

## 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:

The definitions of AOC are couched in terms of backfilling and grading in order to achieve certain results. The Permittee showed that the backfilling and grading plan will

- Minimize off-site effects.
- Achieve a final surface configuration which closely resembles the general surface configuration of the land prior to mining.
- Provide a subsurface foundation for a vegetative cover capable of stabilizing the surface from erosion.

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TECHNICAL MEMO

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- Support the approved postmining land use.

The Division's main concerns with off-site impacts are water quality and slope stability. The Permittee is using and proposes to use sediment control plans that will reduce the amount of sediment leaving the site. The Division will address slope stability issues in the backfilling and grading section of the TA.

The Permittee plans to backfill the entire slopes so that no cut slopes will remain.

The Division considers that the Permittee has met the vegetation requirements for AOC if they met the general vegetation requirements. See the vegetation section of the TA for details.

The Division considers that the Permittee has met the postmining land use requirements when those general requirements have been met. Because there is concern over leaving the roads in place and the need for a change in the postmining land use by other State and federal agencies, the Division will not make a ruling of the postmining land use requirements with regard to AOC at this time.

**Findings:**

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

**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.

**Analysis:**

**General**

The Permittee meet the minimum requirements of this section. The general requirements for backfilling and grading are:

- Achieve the approximate original contour. See the AOC section of the TA for compliance.
- Eliminate all highwalls, spoil piles and depressions. There are no highwalls, spoil piles or depressions at the site.

- Achieve a postmining slope that does not exceed either the angle-of-repose or such lesser slope as necessary to achieve a minimum long-term static safety factor of 1.3 and prevent slides. The Permittee addressed these issues. All slopes will meet those minimum requirements.
- Minimize erosion and water pollution both on and off the site. See the hydrology section of the TA.

**Findings:**

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

**MINE OPENINGS**

Regulatory Reference: 30 CFR Sec. 817.13, 817.14, 817.15; R645-301-513, -301-529, -301-551, -301-631, -301-748, -301-765, -301-748.

**Analysis:**

The Permittee meet the minimum requirements of this section. The Permittee showed that they have meet all of the requirements to keep acid or other toxic drainage from entering ground or surface waters.

**Findings:**

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

**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 has met the minimum requirements of this section of the regulations. The Permittee will reclaim all roads that within the general area of the drill pads. Because the land owners do not know if they want the roads reclaimed this issue will be dealt with at a later time. The Division and the landowners agreed that the road to the site should remain open until reclamation at the drill sites has been achieved.

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**TECHNICAL MEMO**

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**Retention**

The Permittee met the minimum requirements of this section. Because the land owners do not know if they want the roads reclaimed this issue will be dealt with at a later time. The Division and the landowners agreed that the road to the site should remain open until reclamation at the drill sites has been achieved.

**Findings:**

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

**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:**

**Affected Area Boundary Maps**

The Permittee included a map that shows the permit area in relationship to the work done on East Mountain.

**Bonded Area Map**

The Permittee included a map the shows the bonded areas for the drill holes. See Plate 1-1 of the submittal.

**Reclamation Backfilling And Grading Maps**

The Permittee did meet the requirements of this section. The Permittee agreed to submit as built maps and cross sections.

**Reclamation Facilities Maps**

No reclamation facilities are scheduled to be left in place.

**Final Surface Configuration Maps**

The Permittee committed to give the Division certified maps and cross-sections of the reclaimed areas. If possible, the Permittee will include predisturbance maps and cross sections. The maps must show the length of all cutslope remnants that the Permittee will leave after final reclamation. In addition, the Permittee will provide cross sections that they can use to show that the reclaimed areas will be stable. The Permittee must also show where the seeps and springs are located and the drains.

#### **Certification Requirements.**

The Permittee must have the reclamation maps and cross sections certified by a registered professional engineer.

#### **Findings:**

The information provided in the proposed amendment is considered adequate to meet the requirements of this section. Before approval, the Permittee must provide the following in accordance with:

### **BONDING AND INSURANCE REQUIREMENTS**

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

#### **Analysis:**

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

The Permittee met the minimum requirements of the regulations. The Permittee provided the Division with enough information so that the Division could determine the reclamation cost estimate on the East Mountain Project.

#### **Findings:**

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

### **RECOMMENDATIONS:**

The Division should approve the amendment.