

# TECHNICAL MEMORANDUM

## Utah Coal Regulatory Program

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March 22, 2005

TO: Internal File

THRU: Pam Grubaugh-Littig, Permit Supervisor

FROM: Wayne H. Western, Team Lead

RE: Phase I Bond Release Sowbelly Substation Area, Castle Gate Holding Company, Castle Gate Mine Name, Permit C007/0004, Task ID #2149

### **SUMMARY:**

On September 14, 2004, the Division received a requests bond release for the reclaimed 1.84-acre substation and substation access road in Sowbelly Canyon, reclaimed in the fall of 2002. Current bond for Sowbelly is \$233,000 and the Permittee seeks a bond reduction of \$85,000. In order to have adequate bond in place the Division can only grant \$65,000 in bond reduction.

On February 7, 2005, the Division received a response to the deficiencies sent out on December 16, 2004. This memo addresses those responses.

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**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 requirements to achieve approximate original contour restoration are a combination of performance standards for backfilling and grading, hydrology, postmining land use and revegetation. The performance standards include:

- Minimization off-site impacts.
- The final surface configuration closely resembles the general surface configuration of the land prior to mining.
- The topsoil/growth media are adequate to support the vegetation requirements.
- Erosion is minimized.
- The land is able to support the approved postmining land use.

The intent of the approximate original contour regulations is not to restore a site to the approximate premining elevation. Rather the intention of the regulations is to ensure that the reclaimed site has slope lengths and gradients that are within acceptable limits.

The main criterion that the Division uses to determine if the Permittee achieved AOC is whether the postmining topography, excluding elevation, closely resembles its premining configuration. Regulatory requirements that must be achieved include:

- Eliminate all highwalls (none at the substation).
- Eliminate all spoil piles (none at the substation).
- Eliminate all depressions with the exception of small depressions needed to retain moisture, minimize erosion, create and enhance wildlife habitat or assist revegetation.
- Minimize erosion and water pollution both on and off site.
- Support the postmining land use.

Exhibit 3.2-13 provides reclamation topography and cross-section locations. The Permittee met the minimum requirements for achieving AOC because:

- There are no depressions at the site except for small depressions (pocks). The pocks are part of a standard surface roughening methods used to control erosion and water pollution.
- The slopes were reclaimed according to the approved reclamation plan see Exhibit 3.3-4A. The plan minimizes erosion and water pollution.
- The Division expects that the reclaimed site will support the postmining land use of grazing and wildlife habitat because the slopes blend with the surrounding area and the area was seeded (Appendix 1 of the bond release application).

### **Findings:**

The information provided in the bond release package meets the minimum requirements of the approximate original contour requirements.

## **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 general backfilling and grading requirements because:

- The area was reclaimed to the approximate original contour requirements. See the Approximate Original Contour section of the TA for details.
- The reclaimed slopes have a safety factor of 1.3 or greater and do not exceed the angle of repose. See Exhibit 3.3-23 for as-built certifications.
- The Permittee reclaimed the site using surface roughening techniques (pocking). Pocking is an effective means to control erosion and water pollution.

#### **Previously Mined Areas**

The R645 Rules allow the Division to enforce different standards to pre-SMCRA disturbed sites if highwalls or spoil piles are present. Since there are no highwalls or spoil piles associated with the substation area those rules do no apply for that area.

Pre-SMCRA highwalls did exist in the Sowbelly site and the Division addressed those issues during the general Phase I bond release process.

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**Findings:**

The information provided in the bond release package meets the minimum requirements of the backfilling and grading requirements.

**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:**

There are no mine openings at the substation area.

**Findings:**

The information provided in the bond release package meets the minimum requirements of the mine openings requirements.

**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 approved reclamation plan calls for the retention of the road in Hardscrabble Canyon including the access to the substation.

**Findings:**

The information provided in the bond release package meets the minimum requirements of the road systems and other transportation facilities requirements.

## **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**

There was no change to the affected area boundary.

#### **Bonded Area Map**

There was no change to the bonded area.

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

The Permittee included As-Built Reclamation Topography and Cross-section Location Map, Exhibit 3.2-13 with the bond release package.

#### **Reclamation Facilities Maps**

There are no reclamation facilities associated with the substation area.

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

As-built profiles and cross sections are included in the submitted amendment to Appendix 3.3O. When the Division originally reviewed the surface maps they thought that some lines represented cross sections that should have been included. Upon further research the Division determined that the lines represented station points not cross sections. Therefore, the Division withdraws the deficiency.

#### **Reclamation Monitoring And Sampling Location Maps**

Other than the road shown on Exhibit 3.3-19 in the MRP, there are no surface or subsurface manmade features at the substation site.

#### **Certification Requirements.**

All appropriate maps were certified.

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**Findings:**

The information provided meet the requirements for bond release.

**BONDING AND INSURANCE REQUIREMENTS**

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

**Analysis:**

**General**

The Permittee address the general procedures for bond release as follows:

- The Permittee described the area for which Phase I bond release is being sought as 0.72 acres in SE1/4SW1/4 of Section 3, Township 13 South, Range 9 East, SLB&M, Utah.
- The substation area is shown on Exhibit 3.3-23 in the MRP.
- The Permittee provided as built drawing Exhibit 3.2-13 that shows acreage of disturbed areas in Sowbelly Canyon, and reclamation status of each area
- Exhibit 3.2-13 provides dates of completion for the reclamation work and status of bond release.
- The Permittee included a brief history of the mining and reclamation activities.
- There were no ponds within the substation area. The Permittee used surface roughening techniques, such as pocking for sediment control.
- Table 3.1-2 shows the sites within the Castle Gate Mine, the disturbed acres, the bond held, and the bond release requested.

**Determination of Bond Amount**

Current bond for Sowbelly is \$233,000 in 2004 dollars. The Permittee requested that the bond amount be reduce \$85,000 for work done at the Sowbelly Substation. After bond release, the bond amount would be \$148,000 in 2004 dollars.

R645-301-830.300 requires that the Division escalate the bond amount. In 2004, the Division escalated the bond by 2.59%. The Division determined that the bond escalated to 2009 dollars would be \$168,000. Therefore, the Division can only grant \$65,000 in bond release.

**Findings:**

The information provided in the bond release package meets the minimum requirements of the bonding and insurance requirements.

**RECOMMENDATIONS:**

The Division should proceed with the bond release.