

TECHNICAL MEMORANDUM

Utah Coal Regulatory Program

August 9, 2005

TO: Internal File

THRU: Pamela Grubaugh-Littig, Permit Supervisor

FROM: Wayne H. Western, Team Lead

RE: Phase I Bond Release Adit No. 1, Castle Gate Holding Company, Castle Gate Mine, C/007/0004, Task #2244

SUMMARY:

On May 5, 2005, the Division received requests for bond release on approximately 3.0 acres of which 1.7 were disturbed by post SMCRA mining. The Permittee reclaimed the area in the fall of 2002.

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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:

- Off-site impacts are minimized.
- The final surface configuration closely resembles the general surface configuration of the land before 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 site meets the AOC requirements is whether the postmining topography, excluding elevation, closely resembles its premining configuration. The Permittee must achieved the following regulatory requirements:

- Eliminate all highwalls. The highwalls were backfilled and graded. The concrete brows over the portal entrances were left for historical references.
- Eliminate all spoil piles (none at this site).
- Eliminate all depressions with the exception of small depressions needed to retain moisture, minimize erosion, create and enhance wildlife habitat or assist revegetation.
- All slopes will have a static safety factor of 1.3 or greater and not exceed the angle of repose.
- Minimize erosion and water pollution both on and off site.
- Support the postmining land use.

As-Built Reclamation Topography and Cross-section Location Maps are Exhibit 3.5-5AB and Exhibit 3.5-6AB and Exhibit 3.5-7AB. 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 subsequent water pollution.
- The slopes have a static safety factor of 1.3 or greater and the slope angles are less than the angle of repose.
- The reclaimed site is expected to support the postmining land use of grazing and wildlife habitat, because the slope configuration blends with the surrounding area.

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 met the general backfilling and grading requirements, including static safety factor and approximate original contour, see the Approximate Original Contour section of the TA for explanation. See Exhibit 3.5-5AB and Exhibit 3.5-6AB and Exhibit 3.5-7AB.

The site meets the backfilling and grading requirements because:

- The Permittee reclaimed the area to the approximate original contour requirements. See the Approximate Original Contour section of the TA for details.
- The Permittee reclaimed the highwalls.
- There are no spoil piles at the site so those regulations are not relevant.
- There are no depressions at the site except pocks used to control erosion.
- The reclaimed slopes have a safety factor of 1.3 or greater and do not exceed the angle of repose. Exhibit 3.5-5AB and Exhibit 3.5-6AB and Exhibit 3.5-7AB.

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- The Permittee reclaimed the site using surface roughening techniques (pocking). Pocking is an effective means to control erosion and water pollution.
- The reclaimed site will support the postmining land use of grazing and wildlife habitat because the Permittee graded the slope so that it would blend into surrounding area and vegetated the slope with an approved seed mix.

Previously Mined Areas

Pre-SMCRA mining disturbed the site. The R645 rules allow the Division to enforce different standards if highwalls or spoil piles are present. Those rules apply if there is insufficient material to completely backfill the highwalls. The Division found that there was sufficient material to completely backfill the highwalls so those rules do not apply.

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:

All mine openings were sealed and backfilled.

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 reclamation of all roads associated with Adit No. 1. All roads have been reclaimed.

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 maps and cross sections. See Exhibit 3.5-5AB and Exhibit 3.5-6AB and Exhibit 3.5-7AB.

The backfilling and grading maps are adequate to show that the Permittee meet the minimum backfilling and grading regulations including the approximate original contour requirements.

Reclamation Facilities Maps

There are no reclamation facilities associated with the substation area.

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.

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Certification Requirements.

All appropriate maps were certified.

The information provided in the bond release package meets the minimum requirements of the maps, plan and cross section of reclamation requirements.

Findings:

The information presented in the Maps, Plans and Cross Section of Reclamation Operations is adequate to meet the minimum requirements of the R645 Rules

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 approximately 3.0 of which 1.7 was disturbed post-SMCRA in NW1/4NW1/4 of Section 1, Township 13 South, Range 9 East, SLB&M, Utah. The substation area is shown on Exhibit 3.3-23 in the MRP, which was incorporated January 23, 2003.
- The Permittee showed when the work reclamation work was done.
- In the bond release package, the Permittee included a brief history of the mining and reclamation activities.
- There are no ponds within the substation area; sediment control was done with surface roughening techniques, such as pocking.

Determination of Bond Amount

Current bond for Hardscrabble is \$129,054 in 2004 dollars. The Permittee requested a bond release of \$77,432 for the reclamation work done at the Adit No. 1.

R645-301-830.300 requires that the Division escalate the bond. In 2004, the Division escalated the bond by 2.59%. The Division determined that the bond escalated to 2009 dollars would be \$147,000. For Phase I, the Division can only grant up to 60% of the bond amount, thus \$59,000 would have to remain.. Therefore, the Division can only release \$70,054.

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 Phase I bond release.