

TECHNICAL MEMORANDUM

Utah Coal Regulatory Program

March 3, 2006

TO: Internal File

THRU: Wayne Western, Team Lead

FROM: Priscilla Burton, Certified Professional Soil Scientist

RE: Phase I Bond Release for Reclaimed Areas, PacifiCorp, Des-Bee-Dove Mine, C/015/0017, Task ID #2411

SUMMARY:

The Division received a request for Phase I bond release of the following areas on December 20, 2005:

- The Pumphouse Area. Reclamation was completed in 1999. It covered 1.56 acres.
- Des Bee Dove Phase 1. Reclamation was completed in 2002. It included approximately 4 acres of pre-SMCRA disturbance at the Des Bee Dove Mine: the Little Dove/Beehive pad (2.13 acres), the substation and water storage area (0.75 acres) and the access road down to the Desert pad (0.97 acres).
- Des Bee Dove Phase 2. Reclamation was completed in 2003. It included 22 acres of (mostly) pre-SMCRA disturbance. The Deseret Mine, Tipple and Bathhouse cover about 8.4 acres. Substitute topsoil was reapplied to 5.25 acres of reconstructed fill slopes on the bathhouse pad and in the lower main drainage and at the Deseret portal and access road to the Beehive portal.

In situ soils used for surface cover were tested prior to reclamation. Surface cover over mixed coal/soil fill is provided on Dwg #1 included with the application. The depth of substitute topsoil cover varied from 1.0 to 2.5 ft.

The application is not recommended for approval for reasons specified below.

TECHNICAL MEMO

TECHNICAL ANALYSIS:

RECLAMATION PLAN

TOPSOIL AND SUBSOIL

Regulatory Reference: 30 CFR Sec. 817.22; R645-301-240.

Analysis:

Redistribution

The requirements for Phase I bond release are outlined in R645-301-880.310. Requirements for Phase III bond release are described in R645-301-880.330. The Rule states “no bond will be fully released under provisions of this section until reclamation requirements of the Act and the permit are fully met. Charles Semborski signed the C1 form, certifying on behalf of PacifiCorp that the information contained in the application is true and correct.

Reclamation of the Pumphouse area is described in Volume 5 - Appendix IV. The information was reviewed under Task AM00A. Small amounts of coal waste were buried in the former pumphouse storage tank area. The road was ripped and the road berm served as substitute topsoil. Site photos and maps are provided in Appendix A of R645-301-500, Appendix IV of the MRP.

Reclamation of Phase 1 is described in App. XIV. Phase 1 was reviewed under AM01A, AM01B. Reclamation of Phase 2 is described in Appendix XV. Phase 2 was reviewed under tasks AM02D, AM03B, and Task 1786. Both Phase 1 & 2 Des Bee Dove reclamation soils information is found in Appendices A – C of App. XIV and on Plate 200-1 of App XV.

Des Bee Dove Phases 1 & 2 areas were reclaimed using “in site” soils that were sampled in 2000 and 2001. The locations of sampling are shown on Dwg CM-103636-DS, corresponding laboratory analysis is found in App. A. Plate 200-1 App. XV shows locations of trenches that correspond with laboratory analysis found in App. C.

In Phase 1, the outslope of the Beehive pad provided the bulk of the substitute topsoil (represented by sample SS8 and Trench 2 and 2A).

Phase 2 substitute topsoil was gathered from the surrounding slopes nearest the work. The sampling locations are identified on Map 200-1 App. XV and the lab analyses are found in

App. XIV. The App. XV Changer Order tab describes the use of undisturbed soils along the Beehive access road. This undisturbed soil is represented by site SS9. The undisturbed island represented by sample SS5 was left in tact and provides a source of micropropagules for the site.

The bathhouse pad provided a large source of substitute topsoil in Phase 2, and is represented by samples shown on Plate 200-1 and in Volume XV Change Order Tab. The laboratory analyses that accompanied the change order were not included in the Change Order Tab, however. The main drainage fill slopes were also derived from adjacent slopes represented by samples on Map 200-1; however, the samples numbered 5, 8, & 9 represent the coal mine waste which was removed during the Valley Fill Excavation (reviewed under AM01A & B). Upon reaching final grade in the main drainage at Station 4+00 and 5+00, the fill was tested for acid/toxic characteristics. Laboratory analyses of these samples were received in June 2003 by email, but the information was not included with the Phase I bond release application or placed in the MRP.

App. XV Map 200-2 provides the proposed locations of coal mine waste burial in Phase 2. Photographs and Inspection Reports document coal mine waste buried against the Bathhouse cut slope and in a single trench excavated on the bathhouse pad. All coal mine waste was covered with a minimum of four feet of soil. Final coal mine waste burial locations should be identified on the as-built map.

Dwg #1 of the bond release application provides acreages and average replacement substitute topsoil depths for both Phase 1 and 2 Des Bee Dove reclaimed sites.

Cross sections associated with Dwg #1 are shown on Dwg #2 and these cross sections provide a comparison between the as-built configuration and the proposed for Phase 2. This sort of variation was anticipated in the reclamation plan due to the unknown contours beneath the pre-SMCRA operations. In particular during Phase 2:

- A steep slope was created at the 180-degree turn in the Beehive Access Road at Station 16+00.
- Exposed bedrock defines the channel at Stations 16+00, 15+00, and 14+00.
- Coal mine waste was scraped from the steep slopes surrounding the tipple yard to re-expose the cliffs (shown on Dwg #2 at Stations 16 +00 through 11+00).
- Additional substitute topsoil material was gained from deeper cuts on the bathhouse outslope described in the Change Order Tab App XV (shown at -50 to -200 at cross sections 5+00 and 4+00 on Dwg #2).

Findings:

The information provided does not meet the requirements for Phase I bond release. Prior to approval, the Permittee must provide the following information, in accordance with:

TECHNICAL MEMO

R645-301-880.310, •Upon reaching final grade in the main drainage at Stations 4+00 and 5+00, the fill was tested for acid/toxic characteristics. Laboratory analyses of these samples were received in June 2003 by email, but the information must include with the Phase I bond release application or placed in the MRP. •Final coal mine waste burial locations are proposed on Plate 200-1 of Appendix XV. The final burial locations in Phase 1 and 2 should be identified on the as-built map or indicated in the Bond Release application. •The bathhouse pad provided a large source of substitute topsoil in Phase 2, and is represented by samples shown on Plate 200-1 and in Volume XV Change Order Tab. The laboratory analyses that accompanied the change order must be included in the Change Order Tab or with Bond Release application.

RECOMMENDATIONS:

Further information is needed before approval of Phase I bond release for the Des Bee Dove Phase 1, Phase 2, and Pumphouse reclamation areas.