

# TECHNICAL MEMORANDUM

## Utah Coal Regulatory Program

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January 13, 2004

TO: Internal File

FROM: James D. Smith, Environmental Scientist, Team Lead

RE: Update Appendix XIV, PacifiCorp, Des-Bee-Dove Mine, C/015/0017, Task ID # 1786

### **SUMMARY:**

PacifiCorp, through their subsidiary Energy West Mining Company, is reclaiming the Des-Bee-Dove mine site and completed regrading and contouring in June 2003. The reclamation plan originally had a strip of vegetation left between the reclaimed bathhouse pad and the canyon bottom. However, the Permittee, the Division, and the contractor agreed in the field to excavate and recontour the entire slope below the bathhouse, working from the top of the slope to the canyon bottom.

Estimates of erosion and sediment yield for the reclaimed areas had been done using RUSLE 1-06. Because the RUSLE calculations are very responsive to the slope length parameter, the change in the configuration of the slope below the bathhouse required a recalculation for that area. This submittal contains a 3.5-inch floppy disk with the new calculations, Table 2 (page 3) of Appendix B, and a revised Drawing CS1854D, showing the location of the revised, longer profile A3 2D.

There is a minor discrepancy in the submittal that needs correction before it can be approved for insertion into the MRP.

## **RECLAMATION PLAN**

## **HYDROLOGIC INFORMATION**

Regulatory Reference: 30 CFR Sec. 784.14, 784.29, 817.41, 817.42, 817.43, 817.45, 817.49, 817.56, 817.57; R645-301-512, -301-513, -301-514, -301-515, -301-532, -301-533, -301-542, -301-723, -301-724, -301-725, -301-726, -301-728, -301-729, -301-731, -301-733, -301-742, -301-743, -301-750, -301-751, -301-760, -301-761.

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**Analysis:**

**Hydrologic Reclamation Plan**

The reclamation plan originally left a strip of vegetation between the reclaimed bathhouse pad and the canyon bottom. However, the Permittee, the Division, and the contractor agreed to excavation and recontouring of the entire slope below the bathhouse, working from the top of the slope to the canyon bottom.

In the approved reclamation plan, estimates of soil loss (A) and sediment yield (SY) for the reclaimed areas had been done using RUSLE 1.06. Because the RUSLE calculations are very responsive to the slope length parameter (LS), the change in the configuration of the slope below the bathhouse required a recalculation for profile A3-2D. This submittal contains a 3.5-inch floppy disk with the new calculations, and Table 2 (page 3) of Appendix B has been updated.

A revised Drawing CS1854D shows the location of profile A3-2D. Elevation contours on Drawing CS1854D are pre-construction estimates (this map may be updated with as-built elevation contours if a new aerial survey is flown for this area.)

A gradient of 98% and ground cover of 64% were used to recalculate  $A = 0.23$  tons/acre for profile A3-2D. The contours and profile length shown on Drawing CS1854D indicate a gradient of approximately 50%, and the reclamation plan calls for a maximum slope of 2H:1V, or 50%. Calculated using a 50% slope,  $A = 0.14$  tons/acre; with a 50% slope and ground cover reduced from 64% to 55%,  $A = 0.17$  tons/acre. Therefore,  $A = 0.23$  tons/acre is a conservative approximation of soil loss.

The recalculated value for A3-2D in Table 2 (Appendix B) has been placed incorrectly in the cell for A1-1D. This minor discrepancy needs to be corrected before the submittal can be approved for insertion into the MRP.

**Findings:**

Hydrologic information in the submittal does not meet the requirements of the Coal Mining Rules. Prior to approval, the Permittee must address the following:

**R645-301-121.200, 742**, The recalculated value for A3-2D needs to be placed in the correct cell in Table 2 of Appendix B.

## **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:**

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

Drawing CS1854D has been redrawn to show that profile A3 2D now extends from the top of the reclaimed bathhouse pad to the reclaimed channel.

Elevation contours on Drawing CS1854D are pre-construction estimates. This map can be updated with as-built elevation contours if a new aerial survey is flown for this area.

### **Findings:**

Maps, plans and cross sections of reclamation operations meet the requirements of the Coal Mining Rules.

### **RECOMMENDATIONS:**

The amendment should not be approved at this time. The Permittee needs to address deficiencies in the amendment that are described above.