

TECHNICAL MEMORANDUM

Utah Coal Regulatory Program

January 15, 2009

TO: Internal File

FROM: James D. Smith, Environmental Scientist III, Team Lead *DS or Joe/09*

SUBJECT: Phase II and III Bond Release - Old Waste Rock, PacifiCorp, Cottonwood/Wilberg Mine, Permit # C/015/0019, Task ID # 2964

SUMMARY:

The Old Waste Rock Site is located approximately 2 miles from the Cottonwood/Wilberg Mine, along Highway 57. The BLM granted Right of Way (ROW) U-37642 to PacifiCorp in 1977. The 48.62 acre site was initially to be a truck loadout with storage but the BLM issued a modification to use this land for storage of underground development waste. In 1997, PacifiCorp relinquished 1.08 acres from the undisturbed portion of the ROW for an access road to the Texaco #35-14 gas well. On November 2, 1999, PacifiCorp relinquished another 12.98 acres of the ROW to accommodate a utility corridor servicing Texaco's coal bed methane degasification well #34-80: this was mainly undisturbed acreage on the west side of State Highway 57. Current total acreage in UTU-37642 is 34.56 acres.

The Permittee excavated 7 cells beginning in 1983, each cell surrounded with berms of stockpiled material to contain storm runoff from a 10-year, 24-hour event. Material stored in the berms provided the backfill and cover for each cell as it was filled with waste rock and then reclaimed. After each cell was backfilled and graded for reclamation, the Permittee seeded the area with an approved seed mixture. The last backfilling, grading, and seeding were completed in 1992-93 after cell seven reached its capacity. A single berm around the entire disturbed area remained. With two exceptions there has been no mining activity at the Cottonwood/Wilberg "Old" waste rock site since 1993: in 2008 the Permittee removed fences, gates, signs, vegetation monitoring enclosures, silt fence, and debris from the bond release area, which did not create any disturbance, and the Permittee continues to use the abutting, unreclaimed rock and soil storage area.

The total area disturbed by PacifiCorp is 15.62 acres. PacifiCorp submitted an application for Phase I bond release on 13.81 reclaimed acres on December 17, 1998; the unreclaimed 1.81 acres are used for rock and soil storage. The Division approved the Phase I bond release on July 22, 1999. This application is for Phase II and III bond release on the reclaimed 13.81 acres that have received Phase I bond release.

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Representatives from the Division, BLM, and Emery County conducted a preliminary bond release inspection on July 2, 2008. The Division and BLM conducted an official bond release inspection on December 3, 2008; Emery County was invited but declined. The Division did not notify OSM of either inspection, a lapse on the Division's part.

Because the bond also covers reclamation of the "new" waste rock site on the west side of Highway 57 and the rock and soil storage area, the Permittee is not asking for a reduction in the amount of the bond at this time.

TECHNICAL ANALYSIS:

GENERAL CONTENTS

RIGHT OF ENTRY

Regulatory Reference: 30 CFR 778.15; R645-301-114

Analysis:

The Legal and Financial Volume includes basic information on ROW U-37642, granted to PacifiCorp by the BLM in 1977 and modified in 1983, 1997, and 1999.

Findings:

Information in the application is sufficient to meet the requirements of the Coal Mining Rules.

LEGAL DESCRIPTION AND STATUS OF UNSUITABILITY CLAIMS

Regulatory Reference: 30 CFR 778.16; 30 CFR 779.12(a); 30 CFR 779.24(a)(b)(c); R645-300-121.120; R645-301-112.800; R645-300-141; R645-301-115.

Analysis:

The Legal and Financial Volume includes information on the ROW. The metes and bounds of the area to be released from the bond are in the submittal. The submittal includes a

map of the bond release area; however, the map is not formatted (numbered) for insertion into the MRP. Maps in the MRP will need to be updated when the bond release is completed.

Findings:

Information in the application is sufficient to meet the requirements of the Coal Mining Rules.

PUBLIC NOTICE AND COMMENT

Regulatory References: 30 CFR 778.21; 30 CFR 773.13; R645-300-120; R645-301-117.200.

Analysis:

PacifiCorp notified all adjoining property owners, local governmental bodies, etc, informing them of the operator's intention to seek release from bond. A public notice was published in the Emery County Progress commencing on June 24, 2008 and ran for four consecutive weeks.

Findings:

Information in the application is sufficient to meet the requirements of the Coal Mining Rules.

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 Permittee sequentially filled seven cells with refuse and reclaimed them. Backfilling and grading was completed in 1992-93, after cell seven reached its capacity. There has been no further filling or grading at this site. The Division granted Phase I bond release on July 22, 1999.

The surface is gently slopping and flat, and generally resembles the surrounding terrain. A berm remains on the east, west, and south sides of the waste rock site. This berm was

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constructed initially to keep intercepted rainfall from escaping the site, and still retains runoff on-site. All precipitation that is intercepted on the site eventually infiltrates into the ground. The berm has well established vegetation, described in the 2006 Vegetation Report in Attachment 8.

An incised sediment basin remains: it was constructed to keep runoff from Cell 3 out of Cell 4 while the latter was being filled with waste rock. This basin no longer collects runoff and no diversions divert runoff into the basin. Vegetation has established within and around the basin.

During the December 3 inspection, the BLM indicated the berm around the site and the flatness did not meet the BLM's standard for AOC at reclamation, which was a stipulation added to the ROW when it was last renewed; however, after a discussion between the Permittee and the BLM, the BLM concurred that the site met AOC.

Findings:

The site has been restored to AOC.

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:

Backfilling and grading was completed in 1992-93, after cell seven reached its capacity. There has been no further filling or grading at this site. The Division granted Phase I bond release on July 22, 1999.

Findings:

Backfilling and grading is sufficient to meet the requirements of the Coal Mining Rules.

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.

Analysis:

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Hydrologic information, as it relates to sediment control, is in Attachment 9 of the application. Berms were used to control runoff, and a berm on the east, north, and west sides of the disturbed area remains and continues to keep runoff on-site, where it infiltrates and provides moisture for vegetation. The Permittee states there have been no indications of sediment leaving the reclaimed area. There has never been a sedimentation pond, diversion, or water monitoring at this site. Silt fence was used for sediment control, the last silt fence being removed during the site clean-up in 2008 (Attachment 12).

The outslope of the berm, with a total surface area of 0.93 acres, has the potential to contribute additional sediment to areas outside the permit area. The Permittee used RUSLE to compare estimated soil losses from the berm outslope and the reference area. The soil loss from the berm was estimated to be 0.12 t/ac/yr, compared to 0.086 t/ac/yr for the Reference Area. The Permittee has concluded that the estimated loss is greater for the berm area due in part to its steeper slope; 50% compared to 12% in the Reference Area. Based on the RUSLE calculations, the Permittee has estimated that the 0.93-acre berm outslope contributes 223 lbs. of sediment per year, compared to 160 lbs of sediment per year for an equivalent area of the Reference Area, and that the soil loss from the berm is insignificant when compared to the surrounding area as a whole.

Findings:

Hydrologic Information is sufficient to meet the requirements of the Coal Mining Rules.

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:

The plate attached to the submittal [Cottonwood/Wilberg Mine Waste Rock Storage Site (Old) Phase III Bond Release] shows the boundary of the entire BLM ROW and delineates the reclaimed area, the adjacent soil and rock storage area, vegetation reference area, and the relinquished areas.

RECOMMENDATIONS:

The Division should approve Phase II and III Bond Release on the Cottonwood/Wilberg Mine Old Waste Rock Site.