

TECHNICAL MEMORANDUM

Utah Coal Regulatory Program

January 29, 2009

TO: Internal File

FROM: Jim Smith, Permit Supervisor, Hydrologist, Team Lead *JS 04/06/09*

RE: Phase I Bond Release for Remaining Reclaimed Areas [Sediment Pond],
PacifiCorp, Des-Bee-Dove Mine, C/015/0017, Task ID #3043

SUMMARY:

On August 28, 2008, PacifiCorp - through Energy West Mining Company - submitted an application for Phase I bond release and requested bond release on 13.90 acres of land: 13.88 acres at the sediment pond and access road, and 0.01 acres at each of the remote Maple Gulch breakouts. Appendix XVI - Phase 3 Reclamation Plan details the sedimentation pond reclamation plan, and Volume 2, Part 4, Appendix IX contains the details of the reclamation of the remote breakouts.

The Permittee has completed backfilling, grading, and seeding on all areas of the Des-Bee-Dove Mine: Pumphouse area (November 1999), remote portals (July 2000), Mine site proper (Phase 1 May 2002, Phase 2 June 2003), and Sediment Pond (January 2006). The Permittee currently has a surety bond in the amount of \$1,169,718.00.

The Permittee mailed letters to local governments and property owners, notifying them of the proposed bond release, on August 15, 2008. The Permittee published notification of the application for bond release in the Emery County Progress on August 19, 26, September 2, and 9, 2008. On November 19, 2008 the Division sent a letter inviting parties of interest to participate in a bond release inspection of the site, and the on-site inspection was done on Wednesday December 3, 2008. Dennis Oakley and Guy Davis from Energy West Mining Company accompanied three representatives from the US Bureau of Land Management (BLM) and six Division personnel on this inspection.

TECHNICAL MEMO

TECHNICAL ANALYSIS:

RECLAMATION PLAN

POSTMINING LAND USES

Regulatory Reference: 30 CFR Sec. 784.15, 784.200, 785.16, 817.133; R645-301-412, -301-413, -301-414, -302-270, -302-271, -302-272, -302-273, -302-274, -302-275.

Analysis:

At the December 3, 2008 bond release inspection there was a question about the two half-round CMPs that report to the reclaimed sedimentation pond area.

The one nearest County Road #412 is within the road right-of-way and is part of the road drainage system.

The other half-round drains a sediment storage area that was at one time part of the Des Bee Dove disturbed area. The BLM granted ROW UTU-53809 to the Permittee in 1984 to provide additional space to store sediment that was removed from the sedimentation pond after an exceptionally large storm. The sediment storage area was part of the mine's disturbed area until the transfer of the haul road to Emery County in 1998. At that time, although the ROW was still included in the description of the permit area, this sediment storage area was removed from the mine's disturbed area and released from the reclamation bond under a post-mining land use change: it was determined that the sediment pile is part of the toe of the slope supporting the road and reclamation of the sediment pile could jeopardize the integrity of the road.

ROW UTU-53809 was due for renewal in 2004. With the concurrence of the BLM, the Permittee did not renew it. The Division approved removal of the right-of-way from the permit effective March 11, 2005 (Task # 2109). Reasons for relinquishing the ROW were stated in the January 6, 2005 cover letter with the amendment submittal:

- The area was no longer included in the Des Bee Dove disturbed area.
- It overlapped the Emery County Road #412 ROW.

Because of drilling for coal-bed methane in the area, the Division approved a post mining land use change for the Des Bee Dove permit to include industrial/commercial activity and recreation activity on State and Federal lands and recreation activity on fee lands (Task ID #2727, February 2007).

Findings:

Post-mining land uses meets the requirements of the Coal Mining Rules.

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 has restored the channel through the area previously covered by the sedimentation pond. The road has been completely removed. All areas have been filled and graded to approximate the premining topography. All available fill and topsoil were used. The surface was pocked to retain moisture and aid the establishment of vegetative cover.

Findings:

The Permittee has restored the topography 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:

Remote Portals

The remote Deseret and Beehive breakouts were developed in 1980 and reclaimed in 2000. Appendix IX in Volume 2 of the MRP contains details on the reclamation.

No soil had been salvaged when these ventilation breakouts were built, and backfilling and grading was done by hand, using rock and debris scavenged from the steep slopes above and adjacent to the openings. Exposed coal was completely covered. Soil, rock, and other natural materials were placed with the aim of making the site blend with the surrounding terrain.

For this Phase I bond release, the sites were not visited on the ground. Access to these breakout sites is very difficult because of their remoteness and the steepness of the upper slopes of Maple Gulch. On June 24, 2008, Wayne Western of DOGM and Dennis Oakley of Energy West Mining Company were able to visually inspect these sites during a helicopter flight

TECHNICAL MEMO

provided by the Permittee; photos from this aerial inspection are in the Division's database. From Wayne's inspection report:

The first portal to be visited was the Beehive portal, which was hard to find. The inspection team saw that the site was stable and there was no erosion. The second portal to be visited was the Deseret portal. The inspection team noted that there had been some minor sluffing and that a rider seam had been exposed. The reclaimed area had some vegetation and there was no sign of erosion. Both sites met the general requirements for backfilling and grading...

Findings:

Backfilling and grading meet the Coal Mining Rules 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 sedimentation pond access road has been completely filled and graded to match AOC. No roads remain in the Des Bee Dove permit area..

Retention

EC#412, also known as the Des Bee Dove Crossover Road, was formerly the Des Bee Dove coal haul road that connected the Des Bee Dove Mine site with SR57. The Permittee transferred this road to Emery County in 1998, and PacifiCorp no longer has liability for the road or adjacent disturbed, unreclaimed areas that lie within the road the right-of-way.

Findings:

Road systems have either been reclaimed to AOC or transferred to Emery County.

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:

Hydrologic Reclamation Plan

The Permittee has restored the channel through the area previously covered by the sedimentation pond. During reclamation the Permittee used silt fences, straw bales and other sediment control measures to control erosion and off-site sedimentation. Hay was incorporated into the soil over part of the reclaimed area (the Permittee used the hay ordered and delivered but was not able to obtain additional hay before the backfilling and grading was finished) and the surface was hydromulched and pocked to retain moisture and sediment and to aid the establishment of vegetative cover.

There has been no monitoring at this site since removal of the sedimentation pond in 2006 because the UPDES discharge point was the sole monitoring point for the Des Bee Dove Mine. The Permittee used RUSLE calculations to show that the pocking and straw mulch was sufficient to prevent contributions of additional sediment to drainages outside the permit area.

At the December 3, 2008 bond release inspection, there was a question about the two half-round CMPs that report to the reclaimed sedimentation pond area. The one nearest County Road #412 is within the road right-of-way and is part of the road drainage system. The other half-round drains a sediment storage area that was at one time part of the Des Bee Dove disturbed area but was removed as part of the post-mining land-use change when the Permittee transferred the road to the county.

Remote Portals

The Des Bee Dove Mines were notably dry. Water did not discharge from the remote breakouts. The Permittee states that no future discharge from these reclaimed breakouts is expected; considering the aridity of the mines, this seems a reasonable expectation. Reclamation filling and grading restored overland flow across the small areas (0.01 acre) disturbed by each of these breakouts.

On June 24, 2008, Wayne Western of DOGM and Dennis Oakley of Energy West Mining Company were able to visually inspect these remote breakout sites during a helicopter flight provided by the Permittee. From Wayne's inspection report:

TECHNICAL MEMO

Both remote portals have some vegetation in the reclaimed area. The amount appears sufficient to prevent erosion and off site impact. The Permittee could apply for Phase II bond release at the site. At Phase II bond release the Permittee might have to conduct an on the ground study to determine percent cover and diversity.

Findings:

Reclamation Hydrology Plan is sufficient to meet the requirements of the Coal Mining Rules.

RECOMMENDATIONS:

The Division should grant Phase I bond release for the Sedimentation Pond - including the Pond Access Road - and the remote Deseret and Beehive breakouts.

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