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TO: **Internal File**

FROM: Susan M. White, Senior Reclamation Biologist, Team Lead *SMW*

RE: Maple Gulch Portals, PacifiCorp, Des Bee Dove Mines, ~~C/015/017-AM00C-2~~

SUMMARY:

This amendment describes the proposed reclamation of the Maple Gulch Fan Portals. The portals are located in a remote area in the Huntington Canyon drainage. All material for the reclamation will be transported by helicopter. All reclamation will be conducted using hand tools. Laborers for the work will need to hike 1 ½ hours to access the site.

The initial proposed changes and additions to the Des Bee Dove permit were received on June 22, 2000. Response to deficiencies were received August 21, 2000. This memo reviews a response to deficiencies received February 20, 2001. The amendment may be approved and clean copies incorporated into the MRP.

TECHNICAL ANALYSIS :

ENVIRONMENTAL RESOURCE INFORMATION

Regulatory Reference: Pub. L 95-87 Sections 507(b), 508(a), and 516(b); 30 CFR Sec. 783., et. al.

FISH AND WILDLIFE RESOURCE INFORMATION

Regulatory Reference: 30 CFR Sec. 784.21; R645-301-322.

Analysis:

A raptor survey of the portal area was conducted May 22, 2000. There are two nests within the ½ mile buffer zone radius of the portals. One Golden Eagle nest (#822) was active with one chick (Volume 2 Part 4: Appendix IX, page 5) and is within the Deseret Portal buffer

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zone. The nests are not within direct view of the portal.

There is a potential for Townsend's big-eared bat to use the portals. The portals were checked April 27, 2000, and then again just prior to portal closure in July. No evidence of insects or guano were observed.

Findings:

The application meets the minimum regulatory requirements of this section.

RECLAMATION PLAN

PROTECTION OF FISH, WILDLIFE, AND RELATED ENVIRONMENTAL VALUES

Regulatory Reference: 30 CFR Sec. 817.97; R645-301-333, -301-342, -301-358.

Analysis:

Reclamation will commence no sooner than July 17 at the Deseret Portal to prevent any potential disturbance to active golden eagle nest #822. A letter dated June 30, 2000 from the US Fish and Wildlife Service concurs that no negative impact to the productivity of the raptor nests will occur as a result of this reclamation activity.

Findings:

Information provided meets the minimum regulatory requirements of this section.

APPROXIMATE ORIGINAL CONTOUR RESTORATION

Regulatory Reference: 30 CFR Sec. 784.15, 785.16, 817.102, 817.107, 817.133; R645-301-234, -301-270, -301-271, -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:

Approximate original contour restoration will not be assessed. When the portals were developed in 1980 from within the mine no material was salvaged for reclamation. All portals at the Des Bee Dove Mine have been permanently sealed preventing access to these portals through the mine. The only access to the portals is a rugged 2 mile hike. The portal disturbance is less than .04 acres combined disturbance. Material for the reclamation is being transported by helicopter to the site. All available fill material will be used to reclaim the portal areas.

Findings:

Because of the remoteness of these portals and the small surface disturbance (<.04 acres combined) an assessment of AOC will not be made at this time.

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 will use soil material adjacent to and above the portal breakouts. Aerated concrete blocks will be used to fill the void spaces to reduce the amount of fill needed from the surrounding area. The aerated blocks consist of aggregate and Portland Cement with a compressive strength of approximately 100 psi. Surrounding rock and soil material will be used to cover disturbed slopes. All coal seams will be completely covered.

Findings:

The application meets the minimum regulatory requirements of this section.

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:

The portals were permanently sealed in 1986. The amendment states that the seals were approved by MSHA.

Findings:

The information provided meets the minimum regulatory requirements of this section.

TOPSOIL AND SUBSOIL

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

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Analysis:

No topsoil resources were salvaged for reclamation. Adjacent native material will be used to cover the fill material. The Operator should minimize disturbance to existing plant communities when salvaging topsoil material.

Findings:

Because of the inaccessibility, remoteness, and the small surface disturbance (<.04 acres combined) of these portals the requirements of R645-301-240 will be accessed at Phase II and III Bond Release.

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:

Ground-water Monitoring

The Des-Bee-Dove mine complex was dry and water resources for dust suppression and culinary use were supplied from outside the sources. Portal seals at Maple Gulch did not require hydrologic drains.

Surface-water Monitoring

Maple Gulch is an ephemeral drainage which flows in to Huntington Canyon Creek. The portals are located 3 miles from the confluence of Huntington Canyon. The portal area runoff prior to disturbance was sheet flow and attempts will be made to return the disturbance runoff to sheet flow. No water monitoring will be conducted for this site. General monitoring of Huntington Canyon Creek is preformed by the Deer Creek Mine.

Acid and Toxic-forming Materials

The coal outcrop has not been tested for acid and toxic forming material. If problems are observed the problem areas will be tested.

Sediment Control Measures

The measures used to control sediment at this site are surface roughening with hand tools and straw mulch anchored by plastic netting.

Findings:

The information provided meet the minimum regulatory requirements at this time.

REVEGETATION

Regulatory Reference: 30 CFR Sec. 785.18, 817.111, 817.113, 817.114, 817.116; R645-301-244, -301-353, -301-354, -301-355, -301-356, -302-280, -302-281, -302-282, -302-283, -302-284.

Analysis:

General Requirements

The seed mixture is found in section **R645-301-300:Biological**. The seed mixture has a very high rate of application, 202 seeds/ft². Generally recommended application rates are 40 to 100 seeds/ft². Of greatest concern is the application rates of some of the more aggressive wheatgrass species. These grasses while helping to stabilize the site can be persistent, not allowing invasion from the surrounding native species or the other less aggressive species in the seed mixture. The Forest Service, land owner, has approved this mixture. Diversity of the reclaimed site should be monitored so that diversity requirements for Phase III Bond Release can be met.

Timing

The site will be seeded immediately after the soil is roughened. This will be a summer seeding. A summer seeding maybe successful since this area is subject to summer rains.

Mulching and Other Soil Stabilizing Practices

Rocks, shrub and tree debris, and other organic on site materials were used as a top covering for the seeded surface.

Standards for Success

The portals were constructed in 1980 and the postmining land use is livestock grazing and wildlife. No use by cattle was observed at either portal. Vegetation success of the reclaimed

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Maple Gulch portals will be compared to a reference area established adjacent to the portal. Success will be judged on cover and diversity of the site. The success standard for shrub density is zero. A standard of zero was established because of the small area that was disturbed, not because shrubs are not expected on the reclamation. Shrubs will be included in the cover and diversity measurements. The Operator commits to a similarity index value of 70 percent of the reference area. This commitment will likely need to be changed since rarely are species on the reclaimed area and reference area that similar. But this can be changed at anytime prior to bond release.

Findings:

The information provided meet the minimum regulatory requirements of this section.

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:

Reclamation Backfilling and Grading Maps

The only maps provided in this submittal of the portal areas are of such scale that the disturbed areas boundary is shown as a dot on the map.

Final Surface Configuration Maps

No final surface configuration maps were provided in this submittal.

Findings:

Because of the remoteness of these portals and the small surface disturbance (<.04 acres combined) involved the detailed maps described by this section will not be required.

RECOMMENDATION:

Prior to approval, the requirements of R645-301-356 must be provided as outline above.