



# State of Utah

DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

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July 16, 1999

Chuck Semborski, Environmental Supervisor  
Energy West  
P. O. Box 310  
Huntington, Utah 84528

Re: Miller Canyon Portal Reclamation, PacifiCorp, Cottonwood/Wilberg Mine,  
ACT/015/019-99B, Folder #3, Emery County, Utah

Dear Mr. Semborski:

Enclosed please find a stamped approved incorporated copy of the referenced amendment for insertion in your Mining and Reclamation Plan. This amendment clearly addresses the reclamation of the two Portals in Miller Canyon by helicopter. I have also included the technical analyses prepared by the Division staff.

## SUMMARY:

The three Miller Canyon intake portals were developed in October of 1981. They are located on steep rock outcrops. The portals have been permanently sealed since 1987. Portal #1 discharges water occasionally and is the site of a UPDES Permit. The total acreage of the portals is 0.02 acres, each portal is 8 x 20 ft. PacifiCorp proposes to reclaim the Miller Canyon portals in 1999 using a helicopter to transport the backfill and manually raking and seeding the area. To ensure reclamation success, this project should be conducted in late autumn to take advantage of the meager precipitation during late fall, winter and early spring.

## TECHNICAL ANALYSIS:

## **ENVIRONMENTAL RESOURCE INFORMATION**

### **SOILS RESOURCE INFORMATION**

Regulatory Reference: 30 CFR Sec. 783.21, 817.200(c); R645-301-220, -301-411.

### **Analysis:**

As there is currently no reclamation plan for the Miller Canyon portals, this submittal has been added to the MRP as Appendix XXII.

The submittal is not entirely complete as the figure and map mentioned on page 2 which were to be located in Attachment #2 were not found. The soils analyses were found in Attachment #2, not in Attachment #3 as described.

The soils which will be used to reclaim the site originated at the Cottonwood Fan Portals and have been stockpiled at the Cottonwood /Wilberg waste rock site since 1995. According to the MRP Order-III survey, the Cottonwood Fan Portal soils fall within map unit AbG, very stony sandy loams derived from sandstone and shale. The Order-I survey in volume 11 describe the fan portal soils as similar to the "Map Unit A, Lithic Ustorthents." Characteristics of this soil are a very stony sandy loam about four inches thick and pale brown, very cobbly silt loam about 10 inches thick. The soil has a low water holding capacity. The erosion hazard is very high when the soil is bare.

Soil pile "B" will be utilized for this project. Approximately 7 CY of topsoil will be required to replace 18" of topsoil on each opening. Appendix #2 contains 1995 soil sampling information from piles "A", "B", and "C." Although it is not clear which of the reported samples is "B," all of the results reported are satisfactory. A more complete discussion of the soils is found in Volume 11 of the MRP.

**Findings:**

The permittee must provide the following, prior to approval, in accordance with the requirements of:

**R645-301-223, R645-301-120 and R645-301-130,** Please provide Attachment #2 and Attachment #3 as described on page 2 of the submittal and discussed above .

## **OPERATION PLAN**

### **TOPSOIL AND SUBSOIL**

Regulatory Reference: 30 CFR Sec. 817.22; R645-301-230.

**Analysis:**

Topsoil salvaged from the Cottonwood fan-portal area and stored at the Cottonwood Wilberg site will be used for the Miller Canyon reclamation.

Please present information which outlines the volumes of available soil stored at the Cottonwood/Wilberg waste rock site after the Miller Canyon project is completed.

**Findings:**

The permittee has provided the following, prior to approval, in accordance with the

requirements of:

**R645-301-231 and R645-301-120**, A tally in tabular form of the remaining soil stockpiled at the Cottonwood Wilberg waste rock site.

## RECLAMATION PLAN

### TOPSOIL AND SUBSOIL

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

#### Analysis:

Each portal will be filled with 41 CY of rock material to create a French Drain. The rock will be covered with a filter liner. On top of the liner, approximately 7 CY of soil will be placed to a depth of 18 inches. Litter and branches will be incorporated into the slope to add stability. The surface will be roughened, seeded, and raked by hand.

The seed mixture to be sown is similar to that described on page 4-19 of Part 4 of the MRP with the following improvements:

Intermediate wheatgrass has been replaced with Great Basin Wildrye (2 lbs/ac).

Needle and thread grass will be seeded at 1 lb/ac rather than 2 lbs/ac.

Small burnet has been replaced with Palmer penstemon at (1 lb/ac).

Yellow sweetclover has been replaced by Yarrow (0.5 lb/ac).

Wyoming big sagebrush (0.5 lb/ac) has been added.

After seeding, hay mulch with netting or an erosion control blanket should be applied to the soil as described on page 4-20, Part 4 of the MRP.

If it is the intention of the permittee to proceed with the reclamation as soon as possible, the timing is poor for seeding. Table 8 of Appendix XX clearly indicates that there is very little precipitation in June and July. The best time to conduct this reclamation would be in September or October, when precipitation increases. If the seeding fails than it should be repeated in the fall.

#### Findings:

The permittee has provided the following, prior to approval, in accordance with the requirements of:

**R645-301-355**, Adding mulching to the reclamation steps described on page 3 of the submittal.

**R645-301-354**, Seeding will be conducted again in late autumn.

**TECHNICAL ANALYSIS:**

## **RECLAMATION PLAN**

### **MAPS, PLANS, AND CROSS SECTIONS OF RECLAMATION OPERATIONS**

Regulatory Reference: R645-301-521

**Analysis:**

The applicant submitted a set of maps in Attachments 1, 4 and 5 depicting the location, setting and condition of the portal site.

**Findings:**

The applicant has submitted sufficient information to address this issue.

## **RECLAMATION PLAN**

### **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:**

The Permittee's backfilling and grading plan for the Miller Canyon portals consist of sealing the portals with rock and then covering the rocks with topsoil. The topsoil will then be seeded. The vegetation will reduce erosion thereby protect the backfill.

The Division considers the backfilling and grading plan adequate because:

1. The rock backfill is stable. The Permittee plans to hand place the rock backfill which will give the material a high safety factor.
2. The plan will eliminate any highwalls. The portals were constructed as breakouts. There was very little surface disturbance caused when the portals were constructed.

The backfilling plan calls for the elimination of any highwalls (steep surfaces) caused by mining.

**Findings:**

The Permittee met the minimum 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 Applicant proposes to seal the Wilberg mine portals in Miller Canyon. The portals were used for air intakes until the Wilberg Mine fire in December 1984. At that time the portals were temporarily sealed. The more easterly portal (portal #1) was reopened in 1985 for exploration purposes after the mine fire. The portals were permanently sealed in 1987. Portal #1 has a 2-inch water monitoring pipe. Small quantities of discharge occur at that point. Recent field investigation of the portals revealed that there has been some caving of the portal openings. The pipe in portal #1 has been pinched off allowing mine discharge water to flow freely over the rock ledge onto the canyon floor.

Backfill material will be transported to the site by helicopter. A staging area will be located along the side of County Road 506 in Cottonwood Canyon. Approximately 48 CY of material will be needed to backfill each portal. Most of the backfill material will be rock of various sizes.

French drains will be constructed in each portal. The French drains will be constructed by placing rocks in the portals and then wrapping filter fabric around the French drain. The existing 2-inch water monitoring pipe will be removed by the helicopter and disposed.

R645-301-551 requires the Permittee to seal all underground openings as required by the Division and be consistent with MSHA, 30 CFR 75.1711. The intent of R645-301-551 is to prevent access to the underground working and to keep acid or other toxic drainage from entering ground or surface water. The Division is concerned that over time caving will continue and entrances could be created.

The Abandoned Mine Reclamation staff reviewed the portal closure plan. They believe that the backfill and seal will be adequate. The AMR staff recommends that native material be used as backfill when possible because of the lower cost.

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**Findings:**

The Permittee met the minimum requirements of this section.

**BONDING AND INSURANCE REQUIREMENTS**

Regulatory Reference: 30 CFR Sec. 800; R645-301-800, et seq.

**Analysis:**

**Determination of bond amount.**

The Division reviewed the cost for closing the portals located in a remote location. The Division determined that the increase reclamation cost would be less than a 5% increase and that there is no reason to adjust the bond amount at this time.

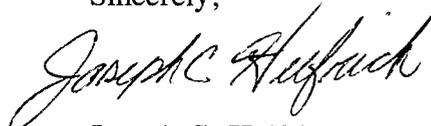
**Findings:**

The Permittee met the minimum requirements of this section.

Thank you for your prompt attention.

If you have any questions please call.

Sincerely,



Joseph C. Helfrich  
Permit Supervisor

tam  
cc: Ranvir Singh, OSM  
Richard Manus, BLM  
Janette S. Kaiser, USFS  
Mark Page, Water Rights  
Dave Ariotti, DEQ  
Bill Bates, DWR  
Price Field Office

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