



State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

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April 18, 2001

TO:

[REDACTED]

THRU: Paul B. Baker, Team Lead (initialize)

PBB

FROM: *WB* Priscilla W. Burton, Soils Reclamation Specialist (initialize)

RE: Miller Canyon Phase III Bond Release, PacifiCorp, Cottonwood/Wilberg Mine,
~~CONFIDENTIAL~~ BR99D-1

SUMMARY:

The three Miller Canyon intake portals were developed in October of 1981. They are located 150' above the canyon floor at an elevation of 7400' in a rock outcrop. The three portals are 8' x 16' each on 100' centers. 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.

PacifiCorp reclaimed the Miller Canyon portals in late June of 1999, using a helicopter to transport rock for backfill and soil for cover. More rock and soil was obtained from the area adjacent to and above the openings. The area was seeded and stabilized with mulch, netting, and surface litter.

As soil was removed from storage at the Cottonwood/Wilberg storage site, a new tally of volumes remaining in storage at that site is requested.

TECHNICAL MEMO

TECHNICAL ANALYSIS:

OPERATION PLAN

TOPSOIL AND SUBSOIL

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

Analysis:

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 (Attachment 2). 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 information provided is adequate for the purposes of this section.

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:

Water seeps from Portal #1 at a rate of 3gpm. "Minor" seeps occur at portals #2 and #3. Attachment 4 shows the typical cross-section of the French drain created in each portal to a depth of six inches with six-inch rock material. The drain was covered with larger rock material and then soil. Soil was placed eighteen inches thick and litter was placed on the soil to control erosion. Photos of the process were located in Attachment #5.

Findings:

Information provided is adequate for the purposes of this section.

TOPSOIL AND SUBSOIL

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

Analysis:

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

The As-Built information indicates that the helicopter imported 50 cubic yards of material (rock and soil) and the remainder of the yardage (approximately 100 yards?) came from the adjacent area. Otherwise, the activity proceeded as planned with 18 inches of soil applied to the rock fill and litter and branches strewn over the surface for stability and aesthetics.

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:

TECHNICAL MEMO

Information provided in the proposed amendment is not considered adequate to meet the requirements of this section. Prior to approval, the permittee must provide the following in accordance with:

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

STABILIZATION OF SURFACE AREAS

Regulatory Reference: 30 CFR Sec. 817.95; R645-301-244.

Analysis:

Areas were stabilized by the installation of a French drain. Straw was incorporated into the soil as the surface was roughened (as stated on page 2). Seed was broadcast and raked into the surface. Straw mulch and netting covered the seeded surface. Large litter was placed on the netting surface.

Annual monitoring will include inspection for rills and gullies. When present, they will be filled and the soil reseeded.

Findings:

The information provided is adequate for the purposes of this regulation.

BONDING AND INSURANCE REQUIREMENTS

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

Analysis:

An inspection was conducted on November 1, 1999. Bill Malencik, Division Reclamation Specialist, was present during that inspection. His memo to file (dated 11/2/99) is on record as concluding that the reclamation was "successful."

The applicant is entitled to receive Phase I bond release, as the backfilling and grading and drainage control have been conducted on the site, pending the outcome of a site inspection.

Findings:

Information provided in the proposed amendment is considered adequate to meet the

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TECHNICAL MEMO

requirements of this section.

RECOMMENDATION:

This submittal is not recommended for approval until a new tally of volumes remaining in storage at the Cottonwood/Wilberg site (Soil Pile B) is received.

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