

0016



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

Michael O. Leavitt
Governor
Ted Stewart
Executive Director
James W. Carter
Division Director

1594 West North Temple, Suite 1210
Box 145801
Salt Lake City, Utah 84114-5801
801-538-5340
801-359-3940 (Fax)
801-538-7223 (TDD)

August 7, 1997

TO: File

THRU: Joe Helfrich, Permit Supervisor *JH*

FROM: Robert Davidson, Soils Reclamation Specialist *RAD*

RE: Cottonwood Fan Portal, PacifiCorp, Cottonwood Wilburg Mine, ACT\015\019-97C, Folder #2, Emery County, Utah

SUMMARY:

The Cottonwood Fan Portal area was initially disturbed in the early 1980s. It was the intention of the permittee to construct a fan portal and a facility pad. However, the fan portal project was never completed beyond the surface disturbance for constructing the pad area. The salvaged topsoil, subsoil, and fill material remained where they had been stockpiled and the cuts for the planned facilities remained. Nevertheless, no facilities were built and nothing further was done with the area.

PacifiCorp proposes to reclaim the Cottonwood Fan Portal in 1997. In response to their proposal, the MRP was reviewed by the Division and was found to be technical inadequate for reclamation of the Cottonwood Fan Portal. PacifiCorp has responded with an MRP amendment containing specific responses to the Division's TA. There are still problems associated the revised MRP. This TA reviews the soils' portion of the reclamation plan.

TECHNICAL ANALYSIS:

ENVIRONMENTAL RESOURCE INFORMATION

SOILS RESOURCE INFORMATION

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

Analysis:

The MRP amendment contains the following information:

- Soil Survey - adequate information provided
- Soil Sampling - confusion between sample sets

Soil Survey - Adequate Information Provided

The original MRP (pages 2-154 thru 2-158) contains Order-III soil survey information for large tracts of land. In other words, no specific soil pit or on-site investigation was made for the fan-portal soils. Therefore, the Order-III soil survey is inadequate to determine the depth and quality of soil that was salvaged from the fan portal area.

To supply adequate soil survey information, PacifiCorp substituted an Order-I survey that was completed in 1993 for the Cottonwood tube-conveyor system. The Order-I soil survey provides an on-site investigation and soil map for the land that is north and adjacent of the proposed fan portal. The assumption for using this survey is that it adequately represents soils that are similar in depth and quality. According to the original Order-III survey, soils fall within map unit AbG for both the fan portal and tube conveyor areas. Therefore, soils within the fan portal area are most likely similar to the "Map Unit A, Lithic Ustorthents" as described in the Order-I survey.

Soil Sampling - Confusion Between Sample Sets

Confusion exists between soil sample data sets. These sample sets as referenced by the amendment include the 1997 samples, tube-conveyor samples on pages 14-16, Appendix-C Order-I soil survey samples, and the Biology Section referenced sample set. Primarily, how do they relate to each other and how do they pertain to the reclamation of the fan portal? In addition, there appears to be discrepancies with certain parameter results between sample sets (e.g., parameters that appear to have the largest discrepancies are pH, EC, and SAR). These discrepancies need to be addressed and how they relate to reclamation of the fan portal.

Please locate all sample sets and references on a map. Provide discussion concerning the map and each sample set succinctly within the amendment.

What are the Biology Section soil samples? Why, where, when, and how were these samples taken?

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 soil sampling information as discussed above.

OPERATION PLAN

TOPSOIL AND SUBSOIL

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

Analysis:

The amended MRP submittal needs to address and clarify the following:

- Soil Salvage - information is incomplete
- Stockpile Locations - conflicting information

Soil Salvage - Information Incomplete

The amendment states mentions the fact that topsoil and subsoil were salvaged from the Cottonwood fan-portal area. The mass-balance tables provided on the reclamation map provide soil-placement volumes during fan-portal reclamation. These tables do not provide information concerning salvaged-soil volumes for either the topsoil or subsoil. Please provide salvaged-soil volumes on the mass-balance tables.

In addition, the soil and fill materials that are stockpiled beneath the fan-portal area needs clarification. The amendment references this "soil" material as being "reclaimed." How does this material differ from the stockpiled topsoil and subsoils? What volume of this material

is stockpiled and will any of this material be used for reclaiming the fan-portal area?

Stockpile Locations - Conflicting Information

The Mt. Nebo soil survey report, Appendix III states that the Cottonwood Fan Portal topsoil and subsoil piles will be transported to the reclaimed Cottonwood Waste Rock site. However, Plate 5-5 show stockpiles labeled CFP. Did any CFP-stockpiled soil get transported to the Waste Rock site during construction of the Cottonwood Belt and Diesel-Roadway Portals? Did any soil from the Portal construction get stockpiled with the CFP soil? If so, how much and which pile?

Findings:

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

R645-301-231 and R645-301-120, Please provide soil salvage and stockpile information as discussed above.

RECLAMATION PLAN

TOPSOIL AND SUBSOIL

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

Analysis:

Conflicting information exists within the MRP amendment concerning soil redistribution. Please address the following to clarify soil redistribution:

- The amendment states different amounts of topsoil and subsoil for reclamation than those shown in the mass-balance tables as referenced on the reclamation map.
- In addition to the mass-balance tables, provide a table and discussion for all soil redistribution. The information should identify where topsoil and subsoil will be placed, what areas, how thick and what volumes.

- Any remaining soil left in the stockpiles needs to be identified and discussed. Identify interim reclamation of the remaining soil and stockpiles. How will the remaining soil be used?

Findings:

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

R645-301-241 and R645-301-120, Please provide soil redistribution information as discussed above.