

TECHNICAL MEMORANDUM

Utah Coal Regulatory Program

June 22, 2005

TO: Internal File

THRU: Karl R. Houskeeper, Environmental Scientist III/Engineering, Team Lead

FROM: Priscilla W. Burton, Environmental Scientist III/Soils

RE: Upgrade to the Forest Service Trailhead, Genwal Coal Company, Crandall Canyon Mine, C/015/0032, Task #2245

SUMMARY:

The application (received May 11 and June 2, 2005) describes a small (0.01 acre) cut of the existing slope at the US Forest Service (USFS) Trailhead parking lot. The action is briefly described on page 5-6a and 5-6ba. Appendix 5-26 contains a detailed map showing the area to be excavated. The Permittee was granted a Special Use Permit by the Forest Service for summer parking and snow storage at the trailhead (document dated June 2003 in Appendix 5-26). This proposal would provide for eleven employee parking spaces at the trailhead, year round. Snow removal and storage will not be affected by this expansion (p. 5-6a).

A 20 ft cut in the slope will remain after final reclamation and will be contemporaneously reclaimed with the final seed mix, less alfalfa and yellow sweetclover. The topsoil to be recovered will amount to 32 yd³ to be placed in stockpile #4 (at the mouth of Crandall Cyn.).

TECHNICAL ANALYSIS:

ENVIRONMENTAL RESOURCE INFORMATION

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

SOILS RESOURCE FORMATION

Regulatory Reference: 30 CFR 783.21; 30 CFR 817.22; 30 CFR 817.200(c); 30 CFR 823; R645-301-220; R645-301-411.

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Analysis:

The 0.01 acre of a southeast facing slope at the west end of the Forest Service Trailhead parking lot will be disturbed to facilitate parking at the trailhead. Plate 2-1 Soil Types Study Map places the soils in Map Unit in JDE (Jodero Variant- Datino Complex 5 – 20% slopes). The representative Datino soil pedon was located in the vicinity of the trailhead (Appendix 2-3, pedon No. 1). This soil is classified as Loamy-skeletal, mixed Cumulic Haploboroll, a very bouldery loam. The description indicates that there is a nine-inch topsoil layer (brown in color). The underlying C horizons extend to a depth of sixty inches. There is about the same rock content in the A horizon as the C horizon.

The underlying C horizons have a higher sand content and are lower in nutrient content (nitrogen, phosphorus and potassium).

Findings

The information available in the MRP meets the Environmental Soil Resource requirements of the Regulations.

OPERATION PLAN

TOPSOIL AND SUBSOIL

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

Analysis:

Topsoil Removal and rage

As described above under Environmental Soil Resource Information, there is a difference exist between the nutrient content of the A and C horizons of the Datino variant soil to be disturbed by expansion of the US Forest Service Trailhead. However, the plan indicates in Section 2.24 that the JDE map unit will be salvaged and used for cover over the DPH2 map unit which soils were not salvaged due to slope. Consequently, the soil will be salvaged in one operation down to 24 inches and placed on stockpile #4 (at the mouth of Crandall Canyon). The

trailhead parking lot expansion will generate an additional 32 yd³ soil in stockpile #4 (at the mouth of Crandall Cyn., pg 2-11). The soil will be left rough and seeded (p. 5-6a). Over time, The Division expects that vegetation growing on the mixture will improve the nutrient status of the subsoil.

Findings:

The information provided meets the soils operation plan requirements of the Rules.

RECLAMATION PLAN

TOPSOIL AND SUBSOIL

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

Analysis:

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Currently there are 12,912 yd³ stored in four stockpiles (p. 2-11) that will be used over 6.41 acres (p. 2-10, Fig 8C). These figures include the recent expansion of the US Forest Service trailhead/parking lot. These figures indicate that there is enough stockpiles topsoil to cover the 6.41 acres with an average of 15 inches of topsoil.

Findings:

Information provided meets the requirements of the Rules.

STABILIZATION OF SURFACE EAS

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

Analysis:

The 20 ft cut in the slope will remain after final reclamation and will be contemporaneously reclaimed with the final seed mix, less alfalfa and yellow sweetclover (p. 5-6b).

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Findings:

The information provided meets the requirements of the Rules.

RECOMMENDATIONS:

Approval of the trailhead/parking lot is recommended.