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TECHNICAL MEMORANDUM

Utah Coal Regulatory Program

June 21, 2013

TO: Internal File

THRU: James Owen, Team Lead *JO*

FROM: Priscilla Burton, CPPSc. *PWB/mrs*

RE: Sedimentation Overflow Pond As-Built, Canyon Fuel Company, LLC, SUFCO Mine, C/041/002, Task ID #4366

SUMMARY:

The sediment control overflow pond is 800 ft. downstream of the existing mine sediment pond on U SFS land under a special use permit (p. 1-10). The pond was approved in the fall of 2009 and added 2.3 acres to the mine site disturbed area (pg 1-11). The disturbed area includes several hundred feet of culvert burial where no topsoil was salvaged.

R645-301-222, Prior to disturbance, the Permittee conducted a site specific soil survey of the overflow pond area (Sec. 2.2.2 p. 2-3), which was to be added to Appendix 2-2 (Sec. 2.2.2 p. 2-8). The information from the soil survey was used to determine topsoil salvage depth. Please provide the Order I soil survey completed in the fall of 2009 prior to disturbance.

R645-301-231.400, Plate 5-2B was revised with the As-built submittal, but there is much more detail of the overflow pond bypass culvert and topsoil stockpile provided on Plate 7-4A . Does this plate need to be redrawn for the as built? Or could you confirm this pile configuration and refer to this plate in the narrative under Section 2.3.1.4 for the description of topsoil storage piles?

R645-301-233.100, Using the outslope of the pond in reclamation of the overflow pond is described in Sec. 5.4.2.2, p. 5-68A. Please label the outslope of the overflow pond as "substitute topsoil" and calculate the volume of this source of substitute topsoil to be added into the calculation of available topsoil on page 2-20.

R645-301-241 and R645-301-352, Topsoil was going to be temporarily stockpiled along the length of the bypass culvert installation. The stockpile was then going to be replaced after culvert installation and the soil was going to receive final reclamation seed treatment (Section 2.3.1.1, p. 18). Please confirm when the topsoil replacement and seeding took place.

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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 INFORMATION

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

Analysis:

Plate 5-2Bv17 outlines several pre-SMCRA coal dumps in the vicinity of the proposed overflow pond and topsoil storage area.

Prior to disturbance, the Permittee conducted a site specific soil survey of the overflow pond area (Sec. 2.2.2 p. 2-3), which was to be added to Appendix 2-2 (Sec. 2.2.2 p. 2-8). The information from the soil survey was used to determine topsoil salvage depth to be approximately 12 inches. The amendment did not include the Order I soil survey completed in the fall of 2009.

Findings:

R645-301-222, Prior to disturbance, the Permittee conducted a site specific soil survey of the overflow pond area (Sec. 2.2.2 p. 2-3), which was to be added to Appendix 2-2 (Sec. 2.2.2 p. 2-8). The information from the soil survey was used to determine topsoil salvage depth. Please provide the Order I soil survey completed in the fall of 2009 prior to disturbance.

OPERATION PLAN

TOPSOIL AND SUBSOIL

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

Analysis:

Topsoil Removal and Storage

Soil salvage operations are described for new surface operations in Sec. 2.3.1.1 of the MRP. The MRP states that the A & B horizons will be stockpiled together or separately and a third stockpile of boulders will be in an adjacent location. The stockpiles will be graded to a 3h:1v slope and seeded.

In Sec. 2.2.4 the Permittee states that the out slopes of dams will be used as substitute topsoil at final reclamation. The overflow pond dam was to be constructed from a former road pad that was well vegetated and would provide a source of suitable substitute topsoil. Using the out slope of the pond in reclamation of the overflow pond is described in Sec. 5.4.2.2, p. 5-68A. Please label the out slope of the overflow pond as "substitute topsoil" and calculate the volume of this source of substitute topsoil to be added in to the calculation of available topsoil on page 2-20. The shaded area at the inlet and outlet of the overflow pond and at the south end of the topsoil storage pile represents rip rap, and should be included in the legend of Map 5-2Bv20.

The overflow pond topography is shown on Plates 7-4A and 7-5A. The stockpile was estimated at 1,850 cu yds (based upon 12 inches of topsoil salvaged from a proposed 1.14 acres. Actual volume recovered was 1,488 yd³ (Sec. 2.3.1.1, p. 18). The stockpile occupies 0.141 acres (Sec. 7.4.2.1). Plate 5-2B was revised with the As-built submittal, but there is much more detail of the overflow pond bypass culvert and topsoil stockpile provided on Plate 7-4A. The overflow pond stockpile is shown on Plate 7-4A. This map has 5 ft contours and the location of the topsoil stockpile will be on an existing 4h:1v slope. The stockpile will have an out slope that rises 52 ft. horizontal :20 ft. vertical or 2:1 slope at the steepest face, which is also the south face. Does this plate need to be redrawn for the as built? Or could you confirm this pile configuration and refer to this plate in the narrative under Section 2.3.1.4 for the description of topsoil storage piles?

Sec. 2.3.1.4 of the MRP describes the construction, modification, use and maintenance of topsoil storage piles. The information states that the stockpiles will be placed on a stable site, and protected by vegetation (seed mix minus shrubs and trees) and by a silt fence below the topsoil stockpile. The overflow pond stockpile will be protected with a berm and silt fencing (Sec. 7.4.2.1). The design installation for the berm's spillway is presented on Plate 7-5C.

Topsoil was going to be temporarily stockpiled along the length of the bypass culvert installation. The stockpile was then going to be replaced after culvert installation and the soil was going to receive final reclamation seed treatment (Section 2.3.1.1, p. 18). Please confirm when the topsoil replacement and seeding took place.

Findings:

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RECOMMENDATIONS:

A few questions should be addressed before approval.