

#4371
R

TECHNICAL MEMORANDUM

Utah Coal Regulatory Program

June 25, 2013

TO: Internal File

THRU: James Owen, Lead *JO*

FROM: Priscilla Burton, Soil Scientist *pubm sas*

RE: Pond 5A Temporary Access Road, Hiawatha Coal Company, Hiawatha Complex, C/007/0011, Task ID #4371

SUMMARY:

Responses to deficiencies of Task 4333 were received on June 10, 2013. The amendment describes construction of a temporary access road from County Rd across the northwest corner of reclaimed slurry pond 5 into active sediment pond 5A for the purpose of loading and hauling coal fines for sale as a product. Design information is found in Appendix V-17.

Slurry pond 5A was re-mined beginning in 2007 (pg 5-29, dated 2007). Slurry pond 5A is also used for run-off control (pg. 5-64) and will be the last structure to be reclaimed (pg. 5-78). Further re-mining of the slurry pond is advantageous to the reclamation plan, however current plans do not provide protection of the soil resource and the Permittee should be reminded of the performance standard in accordance with:

R645-301-231.100 and R645-301-232.300, The Permittee must follow the topsoil salvage plan in the MRP which states that after grubbing, substitute topsoil will be removed down to a depth of six inches (Section 231.100 Topsoil Removal). The Division recommends one additional step, which is to scrape surface coal fines from the grubbed area before removal of the six inches of substitute topsoil. A stockpile of 833 yd³ may be generated from this disturbance (1,000 ft. X 45 ft. X 0.5 ft.). Topsoil will be stockpiled for final reclamation and treated as described in Section 231.100 Topsoil Storage. Topsoil location will be shown on Ex. II-4 and added to the discussion in Section 231.400 Topsoil Construction, Modification and Maintenance."

In addition, the following clarification is requested as a condition of approval, **R645-301-121.100**, Ex. V-9 and Ex. 8-1A should agree on the location of the road in relation to the Phase I bond release area.

TECHNICAL MEMO

TECHNICAL ANALYSIS:

OPERATION PLAN

TOPSOIL AND SUBSOIL

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

Analysis:

Redistribution

The northern portion of slurry pond 5, which is referred to as pond 5A was authorized in 2001 to receive coal mine waste from the Bear Canyon Mine (pp. 5-104 and 5-106 of Sec. 541).

Slurry pond 5A was re-mined beginning in 2007 (pg 5-29, dated 2007). Slurry pond 5A is also used for run-off control (pg. 5-64) and will be the last structure to be reclaimed (pg. 5-78). The proposed reclamation of Slurry Pond 5A is described on page 2-39 through 2-42. Sampling commitments for acid/toxic forming materials are included in this description.

Exhibit V-9 shows the location of the proposed road. The 2008 Phase I bond release map Ex 8-1A shows the road in relationship to the Pond 5 Phase I bond release area. These two maps should agree on the location of the road in relation to the Phase I bond release area. Disturbed area markers will define the boundary between the bond release area and Pond 5A cell (pg. V-17-2). The Phase I bond release area will not be re-affected.

The road and turn-around is approximately 1,000 ft. Cross-sections on page V-17-4 show a 30 ft. wide average width, with an additional 15 ft to accommodate the road ditch. The total area of disturbance then is approximately one acre. The amendment states that no topsoil will be covered as the area is previously disturbed. However rabbitbrush can be seen growing in photos of the disturbed area and will be grubbed. The MRP states that after grubbing, substitute topsoil down to a depth of six inches will be removed (Section 231.100 Topsoil Removal). In the absence of any soil survey detailing otherwise, this topsoil salvage procedure should be followed. The Division recommends one additional step, which is to scrape surface coal fines from the grubbed area and then remove the six inches of substitute topsoil. A stockpile of 833 yd³ may be generated from this disturbance (1,000 ft. X 45 ft. X 0.5 ft.). Topsoil will be stockpiled for final reclamation and treated as described in Section 231.100 Topsoil Storage.

This site is low on topsoil and cover material for mine waste.

Findings:

Further re-mining of the slurry pond is advantageous to the reclamation plan, however current plans do not provide protection of the soil resource and the Permittee should be reminded of the performance standard in accordance with:

R645-301-231.100 and R645-301-232.300, The Permittee must follow the topsoil salvage plan in the MRP which states that after grubbing, substitute topsoil will be removed down to a depth of six inches (Section 231.100 Topsoil Removal). The Division recommends one additional step, which is to scrape surface coal fines from the grubbed area before removal of the six inches of substitute topsoil. A stockpile of 833 yd³ may be generated from this disturbance (1,000 ft. X 45 ft. X 0.5 ft.). Topsoil will be stockpiled for final reclamation and treated as described in Section 231.100 Topsoil Storage. Topsoil location will be shown on Ex. II-4 and added to the discussion in Section 231.400 Topsoil Construction, Modification and Maintenance."

In addition, the following clarification is requested as a condition of approval, **R645-301-121.100**, Ex. V-9 and Ex. 8-1A should agree on the location of the road in relation to the Phase I bond release area.

SPOIL AND WASTE MATERIALS

Regulatory Reference: 30 CFR Sec. 701.5, 784.19, 784.25, 817.71, 817.72, 817.73, 817.74, 817.81, 817.83, 817.84, 817.87, 817.89; R645-100-200, -301-210, -301-211, -301-212, -301-412, -301-512, -301-513, -301-514, -301-521, -301-526, -301-528, -301-535, -301-536, -301-542, -301-553, -301-745, -301-746, -301-747.

Analysis:

Coal Mine Waste and Refuse Piles

The reclamation topography is shown on Exhibit V-13 (dated 1998), and associated cross-sections for Slurry Pond 4 and borrow area F on V-13C and for Slurry pond 5 on V-13D. Neither Exhibit V-13 (dated 1999), nor exhibits provided with the 2009 bond release application clearly indicate existing contours of Slurry Pond 5A. Slurry Pond 5A contours will change with re-mining, therefore as-built contours of slurry pond 5A have been requested under the engineering review.

Slurry ponds/refuse cut and fill balance is stated on p.2-39 and in App. VIII-1, Tables 1-4. Remaining cut/fill work is estimated at 120,444 yd³ cut, with approximately the equivalent 125,259 yd³ fill for Slurry Pond 5A (see Table 1, App V-15) and 94,259 yd³ cut (to be spread out as topsoil over preparation plant area) with 9,326 yd³ fill at the upper railroad yard (see

TECHNICAL MEMO

Table 4, App. V-15). Slurry Pond 5A contours will change with re-mining, therefore as-built contours of slurry pond 5A and reclamation contours will be provided (pg. V-17-2).

Findings:

The information provided meets the requirements for reclamation of coal mine waste.

STABILIZATION OF SURFACE AREAS

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

Analysis:

Surface roughness for the slurry ponds were achieved by either a ripper or backhoe (Section 541, pg. 5-104). The borrow areas were to be ripped, disked, and raked prior to seeding and mulching (Sec. 541, pg. 5-109). Reclamation treatments are shown on Ex. II-5 and discussed in Sec. 341.230. The MRP states that mulch type and application may vary, but that the regraded borrow site and access road and the slurry ponds were to be treated with 1 ton/acre mulch.

Mulch will be applied at a rate of 1.5 tons/acre, with an additional 1,500 pounds of wood fiber mulch if hydroseeding is utilized. (Section 341.230, p. 3-55).

Findings:

The information provided meets the requirements for surface stabilization.

RECOMMENDATIONS:

The amendment is recommended for approval.

O:\007011.HIA\WG4371\WG4371pwb.doc