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# TECHNICAL MEMORANDUM

Utah Coal Regulatory Program

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May 16, 2013

TO: Internal File

THRU: James Owen, Team Lead *jeo*

FROM: Priscilla Burton, Environmental Scientist III/Soils. *PWB km sas*

RE: Waste Rock Disposal Site Subsoil Pile As Built (from West Lease Portal construction), Canyon Fuel Company, LLC, Sufco Mine, C/041/0002, Task #4327

**SUMMARY:**

The waste rock as-built (West Lease Portal development) information received on April 16, 2013, is not recommended for approval for the following reasons.

**R645-301-231.400**, The narrative states that one topsoil stockpile at the waste rock site is dedicated to the mine site. It formerly held 56 yd<sup>3</sup> and now holds only 8.2 yd<sup>3</sup> of topsoil material. This statement should be verified, as the Division believes that the 56 yd<sup>3</sup> topsoil refers to the sedimentation pond stockpile. In addition the total volume provided for three topsoil stockpiles: 1B, 2, &3, should be re-evaluated, as the total volume stated is less than what was formerly described in topsoil stockpile 1B alone. Topsoil pile 1A location should be outlined on Map 4 and the volume of topsoil stockpile 1A should be stated in the narrative.

**R645-301-233.100**, Please update Volume 1, Chapter 2, page 2-20, last paragraph, to include the 11,364 yd<sup>3</sup> of subsoil available at the waste rock site for final reclamation of the 17.4 acre East Spring Canyon facilities pad site.

**R645-301-233.300**, Please provide suitability analysis for the excess spoil which supported its placement in either the subsoil stockpile or the waste rock pile at the waste rock site. Testing of the fill as it is excavated was anticipated and described in Section 2.2.4 and Section 2.3.3.2 and was referred to in the cover letter with the approved West Lease portal tunnel development, Task 3780.

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TECHNICAL ANALYSIS:

**OPERATION PLAN**

**TOPSOIL AND SUBSOIL**

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

**Analysis:**

**Topsoil Removal and Storage**

Three new portals accessing the West Lease and were approved with Task #3548 in 2010. The construction of concrete access tunnels to lessen the grade of the entry to Portal #1 (West Lease Beltline portal) and Portal #2 (West Lease Main Haulage portal) was conditionally approved with Task 3780. The waste rock site as-built amendment received on April 16, 2013 does not meet the commitment stated in the West Lease portal construction application cover letter, dated March 21, 2011, to provide suitability analysis for excess soil which supports placement in either the subsoil stockpile or the waste rock pile at the waste rock site. This as-built information was required as a condition of approval of the West Lease portal construction (reviewed as Tasks 3548, 3739, and 3780). Testing of the fill as it is excavated was anticipated and described in Section 2.2.4 and Section 2.3.3.2 and was referred to in the cover letter with the approved West Lease portal tunnel development, Task 3780.

The MRP identifies 2,160 yd<sup>3</sup> of subsoil stored in the substation bin wall and 5,300 yd<sup>3</sup> of road base and 11,364 yd<sup>3</sup> subsoil stored at the waste rock site that is available for use as subsoil at the mine site (Section 2.3.1.4.). That is a total of 18,824 yd<sup>3</sup> of suitable subsoil available for final reclamation of the 17.4 acre East Spring Canyon facilities pad site, as listed in MRP, Sec. 116. (This amounts to approximately 8 inches of subsoil cover.) Volume 1, Chapter 2, page 2-20, last paragraph, should be updated with this information.

At the East Spring Canyon mine site, topsoil is stored at the substation stockpile (27yd<sup>3</sup>), and at the sediment pond (1,200 yd<sup>3</sup>, Section 2.3.1.4). The overflow pond construction in 2009 was estimated to generate an additional 1,850 yd<sup>3</sup> (Sec. 2.3.1.1, p. 18). **As built for the overflow pond stockpile are overdue.** Substitute topsoil is also located in restored (seeded) slopes at the mine site (pp. 2-10 and 2-23). More specifically, the interim seeded slopes above the parking lot and portals will be used as substitute topsoil (personal communication with Mike Davis, November 24, 2009.)

The waste rock as-built amendment states that there are five topsoil stockpiles at the Waste Rock site. They are Topsoil Pile 1A, 1B, new topsoil stockpiles 2 & 3, and the sediment pond topsoil stockpile. The narrative states that one topsoil stockpile at the waste rock site is dedicated to the mine site. It formerly held 56 yd<sup>3</sup> and now holds only 8.2 yd<sup>3</sup> of topsoil material. This statement should be verified, as the Division believes that the 56 yd<sup>3</sup> topsoil refers to the sedimentation pond stockpile. In addition the total volume provided for three topsoil stockpiles: 1B, 2, & 3, should be re-evaluated as the total volume stated is less than what was formerly described in topsoil stockpile 1B alone. Topsoil pile 1A location should be outlined on Map 4 and the volume of topsoil stockpile 1A should be stated in the narrative.

Final reclamation grading of the mine site is described in Section 5.4.2.2 and Appendix 2-4. Cut/Fill estimates are presented in Appendix 2-5. Approximately 74,000 yd<sup>3</sup> will be moved. Plate 5-3A & B need to be to include the overflow pond downstream of the mine pond, while also adding the new portals and concrete tunnel structures.

**Findings:**

**R645-301-231.400**, The narrative states that one topsoil stockpile at the waste rock site is dedicated to the mine site. It formerly held 56 yd<sup>3</sup> and now holds only 8.2 yd<sup>3</sup> of topsoil material. This statement should be verified, as the Division believes that the 56 yd<sup>3</sup> topsoil refers to the sedimentation pond stockpile. In addition the total volume provided for three topsoil stockpiles: 1B, 2, & 3, should be re-evaluated as the total volume stated is less than what was formerly described in topsoil stockpile 1B alone. Topsoil pile 1A location should be outlined on Map 4 and the volume of topsoil stockpile 1A should be stated in the narrative.

**R645-301-233.100**, Please update Volume 1, Chapter 2, page 2-20, last paragraph, to include the 11,364 yd<sup>3</sup> of subsoil available at the waste rock site for final reclamation of the 17.4 acre East Spring Canyon facilities pad site.

**R645-301-233.300**, Please provide suitability analysis for excess soil which supports placement in either the subsoil stockpile or the waste rock pile at the waste rock site. Testing of the fill to contribute to the substitute topsoil layer is described in Section 2.2.4 and Section 2.3.3.2 and was referred to in the cover letter with the approved West Lease portal tunnel development, Task 3780.

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**RECOMMENDATIONS:**

Several items should be resolved prior to approval.

As built for the overflow pond stockpile are overdue.

Plate 5-3A & B need to be to include the overflow pond downstream of the mine pond, while also adding the new portals and concrete tunnel structures.

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