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State of Utah

DEPARTMENT OF NATURAL RESOURCES

BRIAN C. STEED
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Division of Oil, Gas and Mining

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Division Director

October 30, 2019

Bryant Bunnell
Canyon Fuel Company, LLC
597 South SR24
Salina, Utah 84654

Subject: Sufco WRS As-Built Information, Canyon Fuel Company, LLC, Sufco Mine, C/041/0002, Task #5994

Dear Mr. Bunnell:

The Division has reviewed your application. The Division has identified deficiencies that must be addressed before final approval can be granted. The deficiencies are listed as an attachment to this letter.

The deficiencies authors are identified so that your staff can communicate directly with that individual should questions arise. The plans as submitted are denied. Please resubmit the entire application by no later than November 29, 2019.

If you have any questions, please call me at (801) 538-5350.

Sincerely,

Steve Christensen
Coal Program Manager

SKC/sqs

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Technical Analysis and Findings

Utah Coal Regulatory Program

PID: C0410002
TaskID: 5994
Mine Name: SUFCO MINE
Title: WRS AS-BUILT INFORMATION

Operation Plan

Topsoil and Subsoil

Analysis:

The application does not meet the State of Utah R645 requirements for Soils Operation Plan, because the Waste Rock volume maps 2C and 2D have not been modified with as built locations of soil stockpiles, and because the description of the stockpiles based on cross-sections is not complete, and because the as built information is not clear and concise.

Waste Rock Phase 3/4 soil stockpile volumes and locations are listed on p. 2-26 of the Waste Rock Volume. Appendix VA provides an in depth report titled, "Soil Survey and Soil Salvage Report for the Phase 3, 4 Construction," by Jones & DeMille Engineering, dated 9/21/2018.

The waste rock Soil Summary Table on page 2-27 records topsoil/subsoil salvaged and redistributed for each phase of the waste rock site. The table has been updated with 'as-built', surveyed volumes for Phases 1, 2, 3, &4. The table states that there currently is in storage 64,410 CY of topsoil and 55,343 CY of subsoil. Total volume of soil stored is 119,753 CY. Phase 5 has not been constructed to date. Phase 6 is final reclamation of roads and facilities.

Appendix IX provides detail on the Phase 3 & 4 stockpiles and topsoil berms. In this appendix, aerial imagery of two stockpiles are provided. The topsoil stockpile was placed in the future Phase 4 construction area and the subsoil stockpile was placed in the future Phase 5 construction area.

Appendix IX provides a single cross-section of each is drawn, where two are needed to convey the stockpile shape. The as-built cut/fill table indicates that the topsoil stockpile is 14,197.10 net CY. The subsoil stockpile is 36,509.96 net CY. And, according to as-built table note 4, the Phase 3/4 as built volume of Phase 4 subsoil was increased to 29,493 in the Chap 2 soil as-built table to include the volume of subsoil stored in berms around the stockpiles. The narrative and Map 2 D must identify the location of the additional 15,296 CY of subsoil stockpiled in berms and discuss its protection during operations.

Waste Rock Volume plates 2C and 2D must be updated. Map 2 D must show the location of the stockpiles and identify the location of the additional 15,296 CY of subsoil stockpiled in berms and discuss its protection during operations.

The volumes in the cut/fill table of Appendix IX should be attributed to Phase 3,4 topsoil and subsoil not Phase 4 and Phase 5.

The surveyed volumes provided in the Chapter 2 as-built table must now be labeled "actual volumes," not "estimated volumes" as stated on the left side of the as-built table.

Deficiencies Details:

The application does not meet the R645-301-230 soils operation plan requirements. The following seven items must be addressed prior to final approval:

R645-301-231.400,

1. Waste Rock volume maps 2C and 2D must be updated to show the location of the Phase 3,4 topsoil and subsoil stockpiles..
2. In Appendix IX, a single cross-section of each stockpile is drawn, where two are needed to convey the stockpile shape.
3. App. IX As-built table note 4, the Phase 3/4 as built volume of 14,197 CY Phase 4 subsoil was increased to 29,493 in the Chap 2 soil as-built table, because it includes the volume of subsoil used to construct berms. The narrative and Map 2 D must identify the location of the additional 15,296 CY of subsoil stockpiled in berms and discuss its protection during operations.
5. For clarity, the cut/fill volumes in Appendix IX should be attributed to Phase 3,4 topsoil and Phase 3,4 subsoil, rather than Phase 4 and Phase 5 volumes.
6. The surveyed volumes provided in the Chapter 2 as-built table (p. 2-27) must be labeled" actual volumes," not "estimated volumes" as stated on the left side of the as-built table.

pburton

Reclamation Plan

Topsoil and Subsoil

Analysis:

The application does not meet the State of Utah R645 requirements for Soils Redistribution Plan, because two additional stockpiles may alter the acreages to be reclaimed in each phase, as outlined in Section 242.

The as-built topsoil/subsoil salvage table also provides an estimate of volumes to be placed at reclamation over each phase of the waste rock site. The acres to be covered is stated in Section 242, p. 2-21 as follows: Phase 1 (less roads, storage piles and sediment pond) = 1.28 acres; Phase 2 = 4.23 acres; Phase 3 = 5.98 acres; Phase 4 = 4.93 acres; Phase 5 = 5.42 acres; Phase 6 = 2.58 acres. The total area to be covered with topsoil/subsoil is 24.42 acres. Of note: the area of roads, stockpiles and sediment pond is the same as Phase 6 area. Since there were two new stockpiles formed by Phase 3,4 construction, the acreage in the Section 242 table should be evaluated for changes in sequence.

Using the acreage table in Section 242 (p. 2-21, e-p 47) and the soil summary table at the end of Chapter 2 (p. 2-27, e p. 53), one can calculate that the estimated replacement volumes for phases 1&2, 3 & 4 will generate 4 feet of cover over the waste in each phase.

Deficiencies Details:

The application does not meet the R645-301-240 soil reclamation plan requirements. The deficiency must be addressed prior to final approval:

R645-301-241, Since there were two new stockpiles formed by Phase 3,4 construction, the acreage in the Section 242 table (p. 2-21, e-47) should be evaluated for changes in reclamation acreage with each phase.

pburton

Bonding and Insurance General

Analysis:

The application does not meet the State of Utah R645 requirements for General Bonding.

The amendment does not satisfy the requirements of R645-301-820 because the appropriate earthwork information has not been addressed in the reclamation bond. Topsoil and subsoil volumes have been updated according to the most recent as-built survey as noted on page 2-27 of the application, but the updated volumes have not been addressed

anywhere else other than the Waste Rock Site section of the Earthwork calculations. These volumes and associated costs must be carried through other portions of the reclamation bond that rely on these figures. Additionally, there is a discrepancy in the earthwork costs related to the reported volumes. The previously projected earthwork costs for the waste rock site were determined to be \$873,688. Even though the as-built volumes were almost 10,000 less than projections, the earthwork costs remained the same. These costs must be changed to reflect the updated volumes.

Deficiencies Details:

The amendment does not meet the State of Utah requirements for General Bonding. The following deficiency must be addressed prior to final approval:

R645-301-820: Permittee must update the tables within the reclamation bond to reflect the most recent as-built information at the waste rock site. Additionally, the earthwork costs must be adjusted to account for the decreased volumes that were reported from the as-built survey.

jeatchel