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TECHNICAL MEMORANDUM

Utah Coal Regulatory Program

January 23, 2008

TO: Internal File

THRU: Dana Dean, Team Lead

FROM: Wayne H. Western, Environmental Scientist III, Engineering and Bonding

RE: Waste Rock Pile Expansion, Canyon Fuel Company LLC, Skyline Mine, Permit C/007/0005, Task ID #2890

SUMMARY:

On May 4, 2007, the Division received a request from the Permittee to expand the waste rock site at the Skyline Mine. The Permittee proposes to increase the permit area by 12.5 acres but only add 5.13 disturbed acres at this time. The Permittee plans to increase the disturbed area as needed for future waste rock pile expansions. On December 10, 2007, the Division received additional information.

TECHNICAL ANALYSIS:

ENVIRONMENTAL RESOURCE INFORMATION

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

MAPS, PLANS, AND CROSS SECTIONS OF RESOURCE INFORMATION

Regulatory Reference: 30 CFR 783.24, 783.25; R645-301-323, -301-411, -301-521, -301-622, -301-722, -301-731.

Analysis:

Existing Surface Configuration Maps

The Permittee met the requirements of this section. The existing surface configuration of the expansion to the waste rock site is shown on several maps including Drawing No. 3.2.8-1. The existing surface configuration of the shown on several maps including Drawing 3.1.8-2, Mine Levels 2 & 3 Mine Plan. Since the Permittee does not plan to disturb any of the new acreage at this time, detailed topographic maps of the area are not needed.

Permit Area Boundary Maps

The Permittee did not update the permit boundary maps. The Permittee claims that the change in the permit boundary would be so small that it would not be noticeable on the maps. The Division aggress that no new permit area maps are needed.

Findings:

The information in the proposed amendment is considered adequate to meet the requirements of this section.

OPERATION PLAN

MINING OPERATIONS AND FACILITIES

Regulatory Reference: 30 CFR 784.2, 784.11; R645-301-231, -301-526, -301-528.

Analysis:

The Permittee met the requirements of this section. The Permittee stated that they want to increase the permit area by 12.5 acres and the disturbed area by 5.13 to accommodate an expansion to the waste rock site. The Permittee proposes to expand the disturbed area in phases and that additional disturbance to the 12.5 acres could occur in the future.

The Permittee wants to add the 12.5 acres so that the permit area matches the lease area. This will help the Permittee with lease and permit boundary issues.

Findings:

The information in the proposed amendment is considered adequate to meet the requirements of this section.

ROAD SYSTEMS AND OTHER TRANSPORTATION FACILITIES

Regulatory Reference: 30 CFR Sec. 784.24, 817.150, 817.151; R645-301-521, -301-527, -301-534, -301-732.

Analysis:

Road Classification System

The Permittee met the requirements of this section of the regulations. The portion of the access road to the waste rock site that the Permittee will include in the expanded permit boundary is a public road. The road will remain a public road after final reclamation. The situation is similar to portions of the access road that are already within the permit boundary.

The Permittee will expand the road within the disturbed area. The Permittee had permitted the road within the disturbed area to remain after reclamation since 1992. The Permittee classified the road as a primary road.

Plans and Drawings

The Permittee met the requirements of this section. The Permittee provided general drawings and designs for the road in Section 3.2.1 of the MRP. Drawing 4.16.1-1B shows the location of the roads after final reclamation.

Performance Standards

The Permittee is required to meet all performance standards.

Primary Road Certification

The Permittee met the requirements of this section. The Permittee provided certified maps and plans for the primary roads.

Findings:

The information in the proposed amendment is considered adequate to meet the requirements of this section.

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

The Permittee met the requirements of this section. The Permittee included maps and cross sections of the waste rock site in Section 3.2.1 of the MRP. Some cross sections are in the slope stability report.

The waste rock site is designed to:

- Ensure mass stability and prevent mass movement during operations and reclamation. The site will be operated in the same in the approved manor after the expansion. See Section 3.2.1 of the MRP and the slope stability report.
- The Permittee will construct the site so that final reclamation can be achieved.
- The material will be placed to minimize combustion.

In the EarthFax geotechnical report, the Permittee shows that the site will have a minimum long-term static safety factor of 1.5 or greater.

Refuse Piles

The Permittee met the requirements of this section of the regulations. The operation plan will continue. The Permittee will remove all vegetative and organic materials before placing coal mine waste in the area. Topsoil will be removed and stored.

Findings:

The information in the proposed amendment is considered adequate to meet the requirements of this section.

MAPS, PLANS, AND CROSS SECTIONS OF MINING OPERATIONS

Regulatory Reference: 30 CFR Sec. 784.23; R645-301-512, -301-521, -301-542, -301-632, -301-731, -302-323.

Analysis:

Mining Facilities Maps

The Permittee met the requirements of this section. The Permittee provided an updated copy of Drawing 3.2.8-1, Waste Rock Facilities Access Road. The maps show the location of roads, and coal mine waste deposal areas.

Certification Requirements

The Permittee me the requirements of this section by having Drawing 3.2.8-1, certified.

Findings:

The information in the proposed amendment is considered adequate to meet the requirements of this section.

RECLAMATION PLAN

APPROXIMATE ORIGINAL CONTOUR RESTORATION

Regulatory Reference: 30 CFR Sec. 784.15, 785.16, 817.102, 817.107, 817.133; R645-301-234, -301-412, -301-413, -301-512, -301-531, -301-533, -301-553, -301-536, -301-542, -301-731, -301-732, -301-733, -301-764.

Analysis:

The Permittee met the requirements of this section. The Permittee designed the reclamation plan so that the site will meet the approximate original contour requirements.

The mining and reclamation plan contains information showing that:

- That off site impacts will be minimized.
- Achieve a final surface configuration which closely resembles the general surface configuration of the land prior to mining.
- Provide a subsurface foundation for a vegetative cover capable of stabilizing the surface from erosion.
- Support the approved postmining land use.

The Division considers that off site impacts will be minimized if the reclamation plan meets all the regulations.

Part of the site was an abandoned coal mine. No pre-distrubed contour maps of the area are available. The site does have similar slopes and slope length of the surrounding undisturbed areas and the reclaimed drainages will blend into the undisturbed drainage systems. Therefore, the reclaimed site will closely resemble the surrounding undisturbed area.

The site is designed to encourage vegetation growth. The Division considers this regulation meet if the soils and vegetation requirements have been met.

The site will be restored so that the approved postmining land use will be achieved.

Findings:

The information in the proposed amendment is considered adequate to meet the requirements of this section.

BACKFILLING AND GRADING

Regulatory Reference: 30 CFR Sec. 785.15, 817.102, 817.107; R645-301-234, -301-537, -301-552, -301-553, -302-230, -302-231, -302-232, -302-233.

Analysis:

General

The Permittee met the requirements of this section. As discussed in the AOC section of the TA the reclaimed site will meet the approximate original contour requirements. In addition the reclaimed site will meet the general backfilling and grading requirements because there are no highwalls, spoil piles or depressions (other than pocks for soil stability and vegetation enhancement.)

The slopes will have a minimum static safety factor under saturated condition of 1.44; see EarthFax report dated February 2007 for details.

Findings:

The information in the proposed amendment is considered adequate to meet the requirements of this section.

ROAD SYSTEMS AND OTHER TRANSPORTATION FACILITIES

Regulatory Reference: 30 CFR Sec. 701.5, 784.24, 817.150, 817.151; R645-100-200, -301-513, -301-521, -301-527, -301-534, -301-537, -301-732.

Analysis:

Retention

The Permittee met the requirements of this section. The Permittee will retain the main haul road within the waste rock site after reclamation. The landowner requested that the Permittee leave the road after final reclamation. The road designs have been approved in the MRP.

Findings:

The information in the proposed amendment is considered adequate to meet the requirements of this section.

MAPS, PLANS, AND CROSS SECTIONS OF RECLAMATION OPERATIONS

Regulatory Reference: 30 CFR Sec. 784.23; R645-301-323, -301-512, -301-521, -301-542, -301-632, -301-731.

Analysis:

Reclamation Backfilling And Grading Maps

The Permittee met the requirements of this section. The Permittee provided a certified map of the reclaimed waste rock site. The information on the map was adequate for the Division to analyze the appropriate sections of the reclamation plan.

Findings:

The information in the proposed amendment is considered adequate to meet the requirements of this section.

BONDING AND INSURANCE REQUIREMENTS

Regulatory Reference: 30 CFR Sec. 800; R645-301-800, et seq.

Analysis:

Determination of Bond Amount

The Permittee met the requirements of this section. The Permittee included detailed reclamation costs that are based on the approved reclamation plan. The Permittee included all of the activities listed in Section 4.6.4.1 of the MRP in the reclamation cost estimate.

Findings:

The information provided in the proposed amendment is considered adequate to meet the requirements of this section.

RECOMMENDATIONS:

The Division should approve the application.