

TECHNICAL MEMORANDUM

Utah Coal Regulatory Program

August 28, 2006

TO: Internal File

THRU: Wayne H. Western, Environmental Scientist/Engineering, Bond, Team Lead *W H W*

FROM: *SC* Steve Christensen, Environmental Scientist II

RE: Refuse Pile Access Road, Canyon Fuel Company, LLC., Dugout Canyon Mine, C/007/0039, Task ID #2577

SUMMARY:

The Permittee submitted an application to the Division of Oil, Gas and Mining (the Division) on July 17th, 2006 to alter the access road at the Dugout waste rock site. The application proposes to change the grade of the existing road as well as to add asphalt to the road surface.

The drainage conditions and routing from the previously approved Refuse Pile Amendment (RA Amendment) will not be altered with the proposed road modification. The existing diversion ditches will continue to convey the road drainage away from the disturbed areas at the site.

Plate 1, (drawing # RA 5-5) depicts the plan view of the proposed road modifications. Plate 2, (drawing #RA 5-5A) depicts a profile view of the road segment to be modified, as well as two cross sections. These plans will be added to the Refuse Pile Amendment as Attachment 5-6.

This memo addresses the proposed access road changes as they relate to the hydrology requirements of the State of Utah Coal Mining Rules (R645-301-700).

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TECHNICAL ANALYSIS:

OPERATION PLAN

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:

Plans and Drawings

The application meets the hydrology requirements for Plans and Drawings per R645-301-732. Two plates were submitted depicting the proposed road modification. Plate 1, (drawing # RA 5-5) depicts the plan view of the proposed road modifications. Plate 2, (drawing #RA 5-5A) depicts a profile view of the road segment to be modified. These plans will be added to the Refuse Pile Amendment as Attachment 5-6.

In addition, Plate 2 depicts two typical cross-sections to be constructed during the proposed road modification: a typical crown section as well as a typical reverse crown section.

Performance Standards

The application meets the hydrology requirements for Performance Standards per R645-301-732, -742.400. The drainage conditions and routing associated with the existing access road approved in the Refuse Pile Amendment (RA Amendment) will not be altered with the proposed road modification. The existing diversion ditches will continue to convey the road drainage away from the disturbed areas at the site.

The alignment of the access road will not be changed with the proposed modification. As a result, the existing and approved watershed delineations will not be affected. Undisturbed watershed UWS-2 will continue to flow into undisturbed ditch UD-2 along the north side of the road cut. The flow from this watershed will continue to culvert UC-1 that conveys the water under the access road and into the drainage ditch of the directly adjacent Carbon County road. Runoff generated on the southern slope of the road crown will continue to discharge into the undisturbed drainage that flows into the Carbon County road drainage ditch.

Any change in the time of concentrations and peak discharge rates for both undisturbed watersheds, north and south of the access road, should be negligible. The existing access road is tightly compacted as a result of the amount of large truck traffic that utilizes it to access the site.

As such, the additional impervious surface that will be added to the affected watersheds with the installation of an asphalt surface would not expect to produce a marked increase in storm runoff.

Findings:

The application meets the hydrology requirements for Operational Plan as provided in R645-301-732 and -742.400.

HYDROLOGIC INFORMATION

Regulatory Reference: 30 CFR Sec. 773.17, 774.13, 784.14, 784.16, 784.29, 817.41, 817.42, 817.43, 817.45, 817.49, 817.56, 817.57; R645-300-140, -300-141, -300-142, -300-143, -300-144, -300-145, -300-146, -300-147, -300-147, -300-148, -301-512, -301-514, -301-521, -301-531, -301-532, -301-533, -301-536, -301-542, -301-720, -301-731, -301-732, -301-733, -301-742, -301-743, -301-750, -301-761, -301-764.

Analysis:

Diversions:

The application meets the hydrology requirements for Diversions as provided for in R645-301-742. The alignment of the road will not be changed or altered with the proposed road modification. None of the diversions already approved in the RA Amendment will be changed or will be affected by the proposed project.

Sediment Control Measures

The application meets the hydrology requirements for Sediment Control Measures as provided for in R645-301-742. The likelihood of the proposed road modification contributing additional sediment to the drainage ditches or transporting sediment off the permitted area is very low. The proposed road modification is located between to undisturbed drainage areas. The sediment produced on the disturbed portion of the site will continue to be conveyed to the sediment pond away from the road alignment.

The use of sediment control measures in terms of the actual construction period when the road modifications will take place was discussed with Vickie Miller on August 28th, 2006. Ms. Miller indicated that silt fence would be installed on either side of the road upstream of the culvert UC-1. The silt fence will be installed to guard against sediment transport off the permitted area during the construction phase of the project. The silt fence will be left in place until such time as the disturbance associated with the road modifications has been stabilized and Division personnel deem the silt fences are no longer necessary.

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Findings:

The application meets the hydrology requirements for Hydrologic Information as required per R645-301-742.00.

RECLAMATION PLAN

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:

Reclamation

The application meets the hydrology requirements for Road Systems and Other Transportation Facilities as provided in R645-301-732. Page 7-24 of the approved RA Amendment states that "once the refuse pile is completed and reclaimed so that the road is no longer required for access, the drainage ditch along the county road will be restored by removing the culvert and reclaiming the road in accordance with Chapter 5". Page 5-23 of the approved RA Amendment states "all temporary access roads constructed during refuse pile construction activities will be reclaimed when no longer needed for access to the site. Any surfacing material will be removed, the area will be regarded, ripped and the final reclamation seed mix will be applied as specified in Chapter 3".

Findings:

The application meets the hydrology requirements for Road Systems and Other Transportation Facilities as provided in R645-301-732 and -762.

RECOMMENDATIONS:

The submitted application should be approved and incorporated into the Dugout Waste Refuse Pile Amendment.