



State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

0021

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June 24, 1998

Rick Olsen, General Manager
Canyon Fuel Company, LLC
P.O. Box 1029
Wellington, Utah 84542

Re: Temporary Waste Rock Storage, Canyon Fuel Company, LLC, Dugout Canyon Mine,
ACT/007/039-98B, File #2, Carbon County, Utah

Dear Mr. Olsen:

Thank-you for the opportunity to visit the Dugout project and gain a better understanding of the complexities associated with the mine development. The referenced amendment is hereby approved effective June 24, 1998. A stamped approved incorporated copy of your submittal and the memorandum of understanding are enclosed for insertion into your Mining and Reclamation Plan. Should you decide to pursue the option of using the material as fill for site development I have provided analyses findings and recommendations from Bob Davidson and Wayne Western.

TECHNICAL ANALYSIS:

ENVIRONMENTAL RESOURCE INFORMATION

SOILS RESOURCE INFORMATION

Regulatory Reference: 30 CFR Sec. 783.21, 817.200(c); R645-301-220, -301-411.

Analysis:

The submittal provides analyses results (August 1995) for roof, floor, and coal from the Rock Canyon and Gilson seams. Selenium, Boron and Acid/Base Potential analyses results meet the Division Guidelines for all samples shown. For the Rock Canyon coal sample, the Sodium Absorption Ratio, pH and the Available Water Capacity are rated poor. Both the Rock Canyon and the Gilson Roof coal samples are sodic since their Exchangeable Sodium Percentages both exceed 15% (i.e., 19% and 33%, respectively).

Findings:

The information provided meets the regulatory requirements of this section.

OPERATION PLAN

TOPSOIL AND SUBSOIL

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

Analysis:

Waste rock generated from the Dugout Canyon Mine will be temporarily stored on the mine site surface as shown on Plate 5-2A and on the Appendix 5-7 map. The underground development waste may be used as fill material during site construction if the rock waste is found to be non-toxic and/or non-acid forming. Waste rock not used as fill material will be disposed of after approximately 1500 CY of material accumulates or ever 4 months, whichever is shorter.

Coal Mine Waste is defined as **Underground Development Waste** and includes waste-rock mixtures of coal, shale, claystone, siltstone, sandstone, limestone, or related materials that are excavated, moved, and disposed of from underground workings in connection with underground coal mining and reclamation activities. Use and handling of Coal Mine Waste during operations must adhere to Utah's Coal Mine Permitting, Engineering Regulations, R645-301-528.320. Before the waste can be used as fill material, either during operations or reclamation, the amendment must be specifically address all regulations governing the handling and disposal of Coal Mine Waste.

Findings:

The permittee must provide the following, prior to approval, in accordance with the requirements of:

R645-301-528.320, Before the underground development waste can be used as fill material, either during operations or reclamation, the amendment must be specific concerning all regulations governing the handling and disposal of Coal Mine Waste. For example, issues that must be resolved and included in the amendment discussion include compaction, diverting runoff drainage, diversion channels, quarterly inspections, stability, certified designs, etc.

RECLAMATION PLAN

TOPSOIL AND SUBSOIL

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

Analysis:

Concerning disposal and/or fate of any Coal Mine Waste, the reclamation plan must adhere to Utah's Coal Mine Permitting, Engineering Regulations, R645-301-553.250, R645-301-553.260, and R645-301-553.300. Therefore, the amendment must specifically discuss each of the regulatory issues concerning the ultimate disposal and handling of all coal mine waste stored and used as construction fill.

Findings:

The permittee must provide the following, prior to approval, in accordance with the requirements of:

R645-301-553.250, R645-301-553.260, and R645-301-553.300, The amendment must specifically discuss each of the regulatory issues concerning the ultimate disposal and handling of all coal mine waste stored and used as construction fill.

SPOIL AND WASTE MATERIALS

Analysis:

Coal mine waste.

Coal mine waste is defined as coal processing waste and underground development waste. Since no coal processing will be done on the site the only sources for coal mine waste is underground development waste. The definition of underground development waste is waste-rock mixtures of coal, shale, claystone, siltstone, limestone, or related materials excavated from underground workings. During mine development the large amounts of coal mine waste must be removed.

The only permitted sites where the coal mine waste can be disposed of are at the SUFCO and Skyline mines. In Phase II of the MRP the Permittee proposes to dispose of coal mine waste underground. Until the Permittee develops the mine there is no place underground to dispose of the coal mine waste.

The approved temporary coal mine waste storage facility has not been constructed. The Permittee wants to construct another temporary waste rock storage facility as shown in the amendment submitted to the Division on June 18, 1998.

In the approved temporary waste rock storage facility the Permittee may store waste rock for three months or until a truck load of material has accumulated whichever comes first. In the proposed waste rock site the Permittee wants to store the material on site for 4 months or until 1,500 cubic yards of material have accumulated whichever comes first.

The Division does not have any guidelines for maximum storage time or quantity at a temporary waste rock facility. Some mines have maximum storage times of 30 days with no maximum storage capacity. Other mines have limited storage times and quantities.

One criterion for establishing the maximum storage capacity of the temporary waste rock storage site is the containment capacity of the berm. Runoff from the temporary waste rock site will be controlled by a total containment berm. The calculations for the berm have been reviewed by the Division and been determined to be adequate. The Division will allow the Permittee to storage material in the temporary waste rock site for up to 4 months.

The Permittee states that waste rock that is nontoxic and nonacid-forming could be used for fill material at the mine site. Coal mine waste means coal processing waste and underground development waste. The definition of underground development waste is waste-rock mixture of coal, shale, claystone, siltstone, sandstone, limestone, or related materials excavated, move and disposed of from underground workings.

R645-301-536.400 allows coal mine waste to be used for material in impoundments. While the regulations do not specifically state that coal mine waste can be used for construction of the mine pad the intent is similar. Therefore, the Division has no reason to deny the amendment because the Permittee wants to use coal mine waste for fill material. However the Permittee must address all regulatory requirements for coal mine waste. The R645-301-536 regulations deal with coal mine waste during the operational phase of mining. The R645-301-553 regulations deal with coal mine waste during reclamation. The Permittee did not address how the requirements of R645-301-536 will be met regarding the use of coal mine waste as fill.

- (1) *Minimize adverse effects of leachate and surface-water runoff on surface- and ground-water quality and quantity;*
- (2) *Ensure mass stability and prevent mass movement during and after construction;*
- (3) *Ensure that the final disposal facility is suitable for reclamation and revegetation compatible with the natural surroundings and the approved postmining land use;*
- (4) *Not create a public hazard; and*
- (5) *Prevent combustion.*

Under the requirements of R645-301-512.230 the plans for a coal mine waste facility will be certified by a professional engineer experienced in the design of coal mine waste facilities. The maps and cross section for the temporary storage facility submitted on the June 18, 1998 were not certified.

Findings:

The Permittee did not meet the requirements of R645-301-536 and R645-301-512.230 regarding using waste rock for fill material. Waste rock means coal mine waste. Coal mine waste can only be stored in an approved disposal area. Coal mine waste facilities must meet the requirements of R645-301-536. The plans for the temporary coal mine waste facility were not certified by a professional engineer as required by R645-301-512.230

RECOMMENDATION:

The Division reviewed the designs for the temporary waste rock storage site and found them adequate. Since the designs were not certified, the Division cannot approve them. Once the Permittee submits certified designs, the Division can approve the plan.

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Refuse piles.

Analysis:

A refuse pile means a surface deposit of coal mine waste that is not an impoundment. The Permittee wants to use some coal mine waste as backfill for the construction of the pad area. By definition those areas of the pad that contain coal mine waste are refuse piles. The Permittee did not address the requirements of R645-301-536.900. Those requirements include but are not limited to having the designs for the temporary waste rock site certified by a professional engineer (R645-301-512.230) and not having a slope stability analysis (R645-301-535.110)

Findings:

The Permittee did not address the requirements of R645-301-536.900 and related regulations regarding the construction of a refuse pile at the Dugout Canyon mine. The Permittee must supply the Division with certified maps of the temporary waste rock site (R645-301-512.230) and a slope stability analysis of the temporary waste rock site (R645-301-535.110).

RECOMMENDATIONS:

The Division can approve the construction of the temporary waste rock disposal site when they receive certified design copies. The Division would then have to be given a slope stability analysis before the Permittee could be approved to place waste rock in the temporary storage facility.

RECLAMATION PLAN

BACKFILLING AND GRADING

Analysis:

Waste rock means coal mine waste. All coal mine waste must be permanently placed in an approved facility. The Permittee wants to use some coal mine waste as fill material. By definition those areas of the reclaimed site constructed of waste rock are refuse piles. The Permittee must address how the requirements of R645-301-533.250 and R645-301-533.260 will be met.

Findings:

The Permittee did not address the minimum requirements of R645-301-533.350 and R645-301-533.260 regarding the reclamation of refuse piles at the Dugout mine.

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BONDING AND INSURANCE REQUIREMENTS

Analysis:

Determination of bond amount.

The special handling of coal mine waste at the Dugout mine could increase the reclamation cost estimate. Until the Permittee submits detailed reclamation plans for the on site refuse piles, the Division cannot calculate the reclamation cost estimate. Therefore, the Permittee has not met the requirements of R645-301-830. The Division considers the reclamation costs for the temporary waste rock site to be minor and therefore no bond adjustment is needed at this time. The Division will require the Permittee to give the Division detailed reclamation cost estimates for the temporary waste rock site when the Division needs to revise the reclamation bond amount.

Findings:

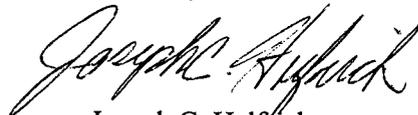
The Permittee has not met the minimum requirements of R645-301-830 regarding the reclamation cost estimate for on site disposal of coal mine waste. The Permittee will not be required to give detailed reclamation costs for the construction of the temporary waste rock storage site at this time. The Permittee will be required to give the Division that information when the reclamation bond is being adjusted.

RECOMMENDATION:

Allow the Permittee to construct and use the temporary waste rock site without submitting detailed reclamation costs. When the Division revises the bond amount, the Permittee must give the Division detailed reclamation cost estimates for the temporary waste rock site.

If you have any questions, please call.

Sincerely,



Joseph C. Helfrich
Permit Supervisor

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Enclosure
cc: Ken Payne, Scofield
Chris Hansen, Scofield
Price Field Office
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