

January 14, 2003

TO: Internal File

THRU: Gregg A. Galecki, Sr. Reclamation Specialist/Hydrology

FROM: Stephen J. Demczak, Sr. Reclamation Specialist/Engineering

RE: Refuse Pile, Canyon Fuel Company, LLC., Dugout Canyon Mine, C/007/039-SR02D-1(a)

**SUMMARY:**

Canyon Fuel Company, LLC has submitted a significant revision to add a refuse pile location for the Dugout Mine. The refuse site will be used to deposit underground waste rock from mining activities. At the present time, underground mining is producing more rock (refuse) than can be stored underground.

The refuse pile will be located on property owned by Canyon Fuel Company, LLC. The site is located approximately 6.5 miles southwest of the Dugout Canyon Mine adjacent to the Carbon County road accessing the mine.

The design capacity of the refuse pile will be 73,000 tons of refuse with a life expectancy of fifteen years.

The permittee will construct the refuse site immediately after Division approval.

**TECHNICAL ANALYSIS:**

**GENERAL CONTENTS**

TECHNICAL MEMO

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## IDENTIFICATION OF INTERESTS

Regulatory Reference: 30 CFR 773.22; 30 CFR 778.13; R645-301-112

### Analysis:

The Identification of Interest is in the current Mining and Reclamation Plan of the Dugout Mine. This information in the MRP was reviewed and has not changed. However, the permittee has given information on Page 1-1 and 1-2 related to the applicant, operator, resident agent, contact person, and the person who will pay abandoned mine reclamation fees. This is the same information provided in the MRP.

The officers, directors, and ownership information was incorporated in the MRP August 15, 2001.

The permittee has obtained an MSHA identification number for the refuse pile. The ID number is No. 1211-UT-09-01890-01. This information is on Page 1-4 of this submittal RA attachment 1-1.

### Findings:

The information provided has met the minimum requirements of this section.

## VIOLATION INFORMATION

Regulatory Reference: 30 CFR 773.15(b); 30 CFR 773.23; 30 CFR 778.14; R645-300-132; R645-301-113

### Analysis:

This information is in the current Mining and Reclamation Plan. This information was updated in September 2002.

### Findings:

The permittee has met the minimum requirements of this section.

## RIGHT OF ENTRY

Regulatory Reference: 30 CFR 778.15; R645-301-114

**Analysis:**

Canyon Fuel Company, LLC, owns the property on which the refuse pile will be placed. This is stated on Page 1-4 of this submittal.

**Findings:**

The permittee has met the minimum requires of this section.

**LEGAL DESCRIPTION AND STATUS OF UNSUITABILITY CLAIMS**

Regulatory Reference: 30 CFR 778.16; 30 CFR 779.12(a); 30 CFR 779.24(a)(b)(c); R645-300-121.120; R645-301-112.800; R645-300-141; R645-301-115.

**Analysis:**

The permittee has submitted maps showing the refuse pile permit area. The permittee has shown that the permit area is the same as the disturbed area. This is shown on Plate 5-1. The permittee has advertised in the newspaper but will need to submit a copy of the advertisement to the Division. This is addressed in the Public Notice and Comment section in this review.

**Findings:**

The permittee has met the minimum requirements of this section.

**PERMIT TERM**

Regulatory References: 30 CFR 778.17; R645-301-116.

**Analysis:**

This information is in the MRP and has not changed.

**Findings:**

The permittee has met the minimum requirements of this section.

**PUBLIC NOTICE AND COMMENT**

Regulatory References: 30 CFR 778.21; 30 CFR 773.13; R645-300-120; R645-301-117.200.

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TECHNICAL MEMO

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**Analysis:**

Administrative Completeness by the Division has been given to the Refuse Pile amendment. The permittee has advertised in the newspaper for public comment. A copy of the advertisement has been submitted and included in RA attachment 1-1 of this submittal.

**Findings:**

The permittee has met the minimum requirements of this section.

**PERMIT APPLICATION FORMAT AND CONTENTS**

Regulatory Reference: 30 CFR 777.11; R645-301-120.

**Analysis:**

The permittee has complied with R645-301.120. The information is in the Mining and Reclamation Plan and this amendment.

**Findings:**

The permittee has met the minimum requirements of this section.

**REPORTING OF TECHNICAL DATA**

Regulatory Reference: 30 CFR 777.13; R645-301-130.

**Analysis:**

The information submitted contains names of persons or organizations that collected and analyzed the data.

**Findings:**

The permittee has met the minimum requirements of this section.

**MAPS AND PLANS**

Regulatory Reference: 30 CFR 777.14; R645-301-140.

**Analysis:**

The permittee has submitted maps with a scale of 1" = 100' for the permit area. The permittee has submitted maps of the location of the permit with adjacent area on RA Figure 1-1B has a scale distance of 1" = 2000'.

**Findings:**

The permittee has met the minimum requirements of this section.

**COMPLETENESS**

Regulatory Reference: 30 CFR 777.15; R645-301-150.

**Analysis:**

The Division has determined that the Refuse Pile significant revision is administratively complete. A determination letter dated August 2, 2002 was sent to the operator.

**Findings:**

The permittee has met the minimum requirements of this section.

**ENVIRONMENTAL RESOURCE INFORMATION**

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

**GENERAL**

Regulatory Reference: 30 CFR 783.12; R645-301-411, -301-521, -301-721.

**Analysis:**

The permittee has submitted information on existing surface and subsurface facilities and features; see Page 5-7. No buildings are located in or within 1,000 of the permit area. No underground mining activities will occur in the refuse permit area. Therefore, there will be no impacts by underground mining activities.

**Findings:**

The permittee has met the minimum requirements of this section.

**TECHNICAL MEMO**

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**PERMIT AREA**

Regulatory Requirements: 30 CFR 783.12; R645-301-521.

**Analysis:**

There will be no surface or underground coal mining in the proposed permit area.

**Findings:**

The permittee has met the minimum requirements of this section.

**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 Structures and Facilities Maps**

There are no existing structures at the proposed refuse site. The permittee has submitted a surface facilities projected layout of the refuse site. See Plate5-1 of this amendment. However, the permittee will have to supply the Division with an As-built surface facility map of the area after construction work is completed. This As-built map must be submitted 30-days after completion of the refuse pile area.

**Existing Surface Configuration Maps**

Several of the maps in the significant revision have the existing surface configuration. This information meets the requirements of this section.

**Permit Area Boundary Maps**

The permittee has submitted an updated permit area map with this submittal. The permit area will also be the disturbed area.

**Surface and Subsurface Ownership Maps**

The permittee has stated on Page 5-7 that there are no surface or subsurface features within, passing through, or passing over the refuse pile area.

### **Surface and subsurface manmade features maps**

The permittee has identified that there are no manmade surface or subsurface features in or within the refuse pile area. Therefore, no map will be required.

### **Contour Maps**

The permittee has submitted existing (Plate 5-1), operational (Plate 5-2) and final reclamation (Plate 5-3) contour maps. The difference between the operation and final reclamation contours are the thickness of the topsoil.

The maps are on a two-foot contour interval. Reviewing the refuse pile construction contours there are seven contour lines. This would indicate a minimum of a fourteen feet rise in the pile from bottom to top. Page 5-15 in the text addresses only a ten feet construction height. Also on RA Attachment 5-2 (Pile Slope Stability) uses a design of 10 feet in height. Talking to Tom Scuhoski, Engineer at EarthFax Engineering on July 11, 2002 indicated that the refuse pile is incised. The calculation on slope stability is determined by refuse material above ground level.

### **Findings:**

The information provided is adequate in meeting 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:**

#### **Facilities and Structures**

The permittee has submitted facilities map Plate 5-1 which includes sediment pond, storage area, access road, topsoil storage, culvert (DC-1), and refuse storage area. This map contains the necessary information. Plate 5-1 is P.E. certified.

### **Findings:**

The permittee has met the minimum requirements of this section.

**TECHNICAL MEMO**

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**EXISTING STRUCTURES:**

Regulatory Reference: 30 CFR 784.12; R645-301-526.

**Analysis:**

There are no existing structures in this area.

**Findings:**

The permittee has met the minimum requirements of this section.

**RELOCATION OR USE OF PUBLIC ROADS**

Regulatory Reference: 30 CFR 784.18; R645-301-521, -301-526.

**Analysis:**

The permittee will be transporting refuse material from the Dugout Mine to the Refuse site by way of a Carbon County Road. The permittee will have to use State licensed and inspected vehicles to transport waste material from the mine to the refuse site.

**Findings:**

The permittee has met the minimum 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 has classified the access road to the refuse pile and the temporary road to construct the refuse pile as primary roads.

### **Plans and drawings**

The permittee has a plan including a detailed description of each road to be used or maintained within the proposed permit area. The description will include RA Figure 5-2.

### **Performance standards**

The permittee has addressed a maintenance plan as described in Page 5-11 of this amendment.

### **Primary road certification**

Detailed design plans has been prepared by, or under the direction of, and certified by a qualified, registered, professional engineer. David Spillman badge #151610 certified the primary road designs.

### **Findings:**

The permittee has met the minimum 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:**

#### **Refuse piles**

The permittee must comply with MSHA, 30 CFR 77.214 and 30 CFR 75.215. There has been no contact with MSHA concerning the establishment of a refuse pile at the Dugout Mine. To comply with 30 CFR 75.215, the permittee must receive an identification number from MSHA after a site visit and approval. Contacting Billy Owens from the MSHA Denver office verified this information on July 10, 2002.

The designs and their associated evaluations were based on the results of a detail foundation and laboratory analyses of soils at the refuse pile site.

The permittee has submitted a certified design on the construction of the refuse pile. This design will have a static safety factor of 7.48 in the refuse materials, which is greater than the minimum required 1.5 static safety factor. See RA Attachment 5-2 in the submittal.

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**TECHNICAL MEMO**

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Outslopes on the native alluvial soils will have a static safety factor of 1.62 for failure surfaces starting in the refuse and terminating in the underlying soils. This is still greater than the minimum requirement of 1.5 static safety factor.

**Findings:**

The information given does meet the minimum requirements of this section.

**SUPPORT FACILITIES AND UTILITY INSTALLATIONS**

Regulatory Reference: 30 CFR Sec. 784.30, 817.180, 817.181; R645-301-526.

**Analysis:**

The permittee has submitted facilities map Plate 5-1 which includes sediment pond, storage area, access road, topsoil storage, culvert (DC-1), and refuse storage area. This map contains the necessary information. Plate 5-1 is P.E. certified.

**Findings:**

The permittee has met the minimum requirements of this section.

**SIGNS AND MARKERS**

Regulatory Reference: 30 CFR Sec. 817.11; R645-301-521.

**Analysis:**

The permittee has addressed this portion of the R645-301 Coal Rules. An identification sign will be displayed at the refuse pile. This sign will have all the required information.

**Findings:**

The information provided meets the minimum requirement 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:**

### **Affected area maps**

There will be no underground mining in this area. This permitted area will only be used to store refuse material. Therefore, there will be no affected area due to underground mining.

### **Mining Facilities Maps**

The permittee has submitted facilities map Plate 5-1 which includes sediment pond, storage area, access road, topsoil storage, culvert (DC-1), and refuse storage area. This map contains the necessary information. Plate 5-1 is P.E. certified.

## **Findings:**

The permittee has met the minimum requirements of this section.

# **RECLAMATION PLAN**

## **GENERAL REQUIREMENTS**

Regulatory Reference: PL 95-87 Sec. 515 and 516; 30 CFR Sec. 784.13, 784.14, 784.15, 784.16, 784.17, 784.18, 784.19, 784.20, 784.21, 784.22, 784.23, 784.24, 784.25, 784.26; R645-301-231, -301-233, -301-322, -301-323, -301-331, -301-333, -301-341, -301-342, -301-411, -301-412, -301-422, -301-512, -301-513, -301-521, -301-522, -301-525, -301-526, -301-527, -301-528, -301-529, -301-531, -301-533, -301-534, -301-536, -301-537, -301-542, -301-623, -301-624, -301-625, -301-626, -301-631, -301-632, -301-731, -301-723, -301-724, -301-725, -301-726, -301-728, -301-729, -301-731, -301-732, -301-733, -301-746, -301-764, -301-830.

## **Analysis:**

The permittee will reclaim the refuse pile area but it appears that the road from the county road will not be reclaimed. If this road will not be reclaimed, it will be considered a primary road. The sediment pond at the lower end of the refuse pile will be reclaimed.

All engineering maps related to the reclamation of the refuse pile are P.E. certified.

The refuse pile will have a 3H:1V outslope. The final controls can be seen of Figure 5-3.

The permittee has submitted a timetable to reclaim the refuse pile area. This is on RA Figure 5-1. The table is labeled "Months From Start of Reclamation". The project from start to finish of this project would take almost 24 months. This would be an extremely long time to complete this project. Page 5-21 explains in detail for having the 24 months reclamation period for the refuse pile area.

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TECHNICAL MEMO

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**Findings:**

The information given does meet the minimum requirements of this section.

**APPROXIMATE ORIGINAL CONTOUR RESTORATION**

Regulatory Reference: 30 CFR Sec. 784.15, 785.16, 817.102, 817.107, 817.133; R645-301-234, -301-270, -301-271, -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 area around the refuse pile will be reclaimed back to Approximate Original Contour. The refuse pile itself will be approximately ten feet higher than the original ground prior to placement of the refuse.

**Findings:**

The permittee has met the minimum 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**

There will be some backfilling and grading to this area. The sediment pond will be breached and the embankments will be pushed into the pond, creating a gentle slope. The diversion ditches will be filled in by pushing the downstream berm into the ditches. This would create a free draining surface.

**Steep Slopes**

The permittee has indicated on Pages 5-16 and 5-25 that prior to seeding all areas with a slope of 3h:1v or steeper will be roughened using a trackhoe. These slopes are on the refuse pile as stated on 5-16.

**Findings:**

The information given does meet the minimum 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:**

#### **Reclamation**

The permittee will reclaim a portion of the road to the refuse pile. It appears that 600 ft. from the County road will not be reclaimed. This section of road will be used in the post-mining land use, which is wildlife habitat and livestock.

#### **Retention**

The permittee will not leave any temporary roads after reclamation. However, the road from the refuse pile to the county road approximately 600 feet will be retained after reclamation. This road is classified as a primary road having all of the required road designs.

### **Findings:**

The information given does meet the minimum requirements of this section.

## **CESSATION OF OPERATIONS**

Regulatory Reference: 30 CFR Sec. 817.131, 817.132; R645-301-515, -301-541.

### **Analysis:**

Upon the permanent cessation of coal mining and reclamation operation at the Dugout Canyon Mine, Canyon Fuel Company, LLC, will close, backfill, or otherwise permanently reclaim all affected areas in accordance with the R645 regulations and this reclamation plan.

### **Findings:**

The permittee has met the minimum 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.

**TECHNICAL MEMO**

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**Analysis:**

**Affected area boundary maps**

There will be no impacts due to the fact that no mining of any type will occur in this area.

**Bonded area map**

The bonded area is the permit area and the permittee has met this requirement. This map is P.E. certified.

**Reclamation backfilling and grading maps**

The permittee has submitted Plate 5-4 giving information on the backfilling and grading for the refuse pile area.

**Reclamation facilities maps**

There will be no facilities after final reclamation. No map will be required.

**Final Surface Configuration Maps**

Plate 5-3 and 5-4 address the reclamation surface configurations. These maps are P.E. certified.

**Reclamation surface and subsurface manmade features maps**

There will be no surface or subsurface manmade features; therefore, this map will not be required.

**Findings:**

The permittee has met the minimum requirements of this section.

**RECOMMENDATIONS:**

This significant revision is recommended for approval.