

May 20, 2003

**TO:** Internal File

**THRU:** Priscilla Burton, Team Lead

**FROM:** Wayne Western, Environmental Scientist III

**RE:** Star Point Waste Fuel Mine Permit Application, Sunnyside Cogeneration Associates Inc., Star Point Waste Fuel Mine, C/007/042

**SUMMARY:**

Sunnyside Cogeneration Associates (SCA) acquired the Wattis Coal Refuse Pile that is located in Sage Brush Canyon. The refuse pile has accumulated from the disposal of coal mine waste from the Star Point Mine which is currently owned and being reclaimed by Cypress Plateau Mining Corporation (CPMC), a subsidiary of RAG American Coal Company. SCA want to ship the coal mine waste to their facility at Sunnyside.

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**TECHNICAL ANALYSIS:**

**ENVIRONMENTAL RESOURCE INFORMATION**

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

**PERMIT AREA**

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

**Analysis:**

The permit area is shown on several maps. Map 111.100a, SCA/Star Point Waste Fuel Permit Boundary Map, shows location of the permit area and gives a detailed legal description. The permit area is divided into two areas, the refuse pile and the topsoil stockpile area.

The acreage for each parcel within the permit area is given on Map 111.100a. The parcels are owned either by Sunnyside Cogeneration Associates or the BLM.

On Exhibit 112.500a, the Applicant list the acres owned by the federal government, SCA and PMC. In addition, the Applicant also lists the number of pre-law, post-law, undisturbed and reclaimed acres.

**Findings:**

The information in the PAP is considered adequate to meet the minimum requirements of the Permit Area regulations.

**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:**

**Affected Area Boundary Maps**

The Division considers the affected area for the SCA/Star Point Waste Fuel Refuse Pile to be the same as the permit area. Note: the affected area includes sub-areas for which it is anticipated that additional permits will be sought. Given the nature of the project, recovery of refuse material, the Permittee will most likely not seek addition areas to mine.

### **Existing Structures and Facilities Maps**

The existing facilities and surface configuration as of 2003 are shown on Map 521.100g and 521.100h. The map shows Structure 17, Structure 18, Structure 19, Structure 35 and Structure 75. In addition to those structures, the Permittee shows ponds, refuse piles, and roads.

### **Existing Surface Configuration Maps**

The term existing surface configuration is not defined. Because part of the proposed permit area was disturbed pre-SMCRA and some part post-SMCRA, the issue can become complicated. The Permittee did give the Division Map 521,100j, SCA/Star Point Waste Fuel Pre-SMCRA Surface Configuration Map, which shows the topography as of November 21-22 1976. The Division will assume that map shows the topography that existed prior to the enactment of SMCRA and that any question arising from Pre-SMCRA or Post-SMCRA issues will be resolved in part by Map 521.100j.

### **Mine Workings Maps**

There are no known underground or surface mines in the area. The only mining activity that has occurred in the area involves the refuse pile and topsoil storage area.

### **Permit Area Boundary Maps**

Map 111.100a, SCA/Star Point Waste Fuel Permit Boundary Survey, shows the permit boundaries. The map also shows the legal description.

### **Surface and Subsurface Manmade Features Maps**

The locations of all buildings within 1,000 feet of the permit boundary are shown on Maps 521.100g and 521.100b. Most of the buildings outside the permit area are scheduled to be demolished as part of the Star Point mine reclamation.

The maps show the location of the County Road 290, which runs parallel to the northern boundary of the refuse pile permit area.

### **Findings:**

The information provided in the PAP is considered adequate to meet the minimum requirements of the maps and cross-sections regulations.

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## **OPERATION PLAN**

### **MINING OPERATIONS AND FACILITIES**

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

#### **Analysis:**

The mining activities at the SCA/Star Point Waste Fuel Refuse Pile will consist of excavating and handling coal mine waste (refuse.) Approximately 100,000 to 300,000 tons per year of coal mine waste will be excavated by SCA from the permit area. SCA will use a standard mobile fleet of excavation equipment that may include all or some of the following: dozers, front-end loaders, end-dump trucks, scrapers, backhoes, and support equipment.

The Applicant proposes to use the existing structures and facilities, which were approved for use by PMC. Those structures and facilities are shown on Plate 521.100a, Plate 521.100b and in section 526 of the PAP.

#### **Findings:**

The information provided in the PAP meets the minimum requirements for the mining operations and facilities section of the regulations.

### **EXISTING STRUCTURES:**

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

#### **Analysis:**

In section 526.111 of the PAP, the Applicant lists the following existing structures:

- Coal Waste Refuse Pile
- Vegetation/Soil Test Plots
- Sediment Pond No. 5
- Sediment Pond No. 6
- Accounting/Surface Operations Office
- Surface Operations Bathhouse
- Surface Foreman's Office, Salt Storage, Achieves
- Excess Spoil Disposal Area (Former Pond Treatment Area)
- Concrete Slab (Part of fuel storage/dispensing structures that have been removed.)
- Shop Building

- Sediment Pond No. 9

Exhibit 526.112a contains photographs of the existing structures. That information is adequate to document the structures that exist at the time of permit issuance and the condition that the structures are in.

**Findings:**

The information provided in the PAP meets the minimum requirements for the existing structures section of the regulations.

**RELOCATION OR USE OF PUBLIC ROADS**

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

**Analysis:**

The Applicant does not plan to relocate or use any public roads that are within the permit boundary. However, SCA does plan to conduct mining operations with 100 feet of the right-of-way of a public road.

In Section 526.116 of the Pap the Applicant states that the public will be protected from mining operations that occur within 100 feet of the County Road by:

- Maintaining stable slopes in the permit area.
- Removing debris from the road and culvert
- Not cutting any steep cut slopes or altering an natural drainages
- Posting stop signs to all entrances to the County Road.

The Division does not have specific standards for how mining will be conducted within 100 feet of a public road. The measures taken by the Applicant are similar to those at other mines and specifically when Plateau Mining was operating the facility. Therefore, the Division considers that actions sufficient to protect the public.

**Findings:**

The information provided in the PAP is considered adequate to meet the minimum requirements of the relocation or use of public roads requirements of the regulations.

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## **COAL RECOVERY**

Regulatory Reference: 30 CFR 817.59; R645-301-522.

### **Analysis:**

The Applicant proposes to ship coal refuse from the site to a cogeneration facility. At the cogeneration facility, the Applicant will burn the coal refuse to generate electricity. Given the nature of the material and the locale markets the only foreseeable use of the refuse material is to burn the material in a cogeneration facility. The only other option is to bury the refuse material at the current location.

### **Findings:**

The information provided in the PAP meets the minimum requirements for the coal recovery of the regulations.

## **SUBSIDENCE CONTROL PLAN**

Regulatory Reference: 30 CFR 784.20, 817.121, 817.122; R645-301-521, -301-525, -301-724.

### **Analysis:**

The Applicant does not propose to conduct underground coal mining within the proposed permit boundaries. There are no known underground workings within the proposed permit boundaries. Since subsidence will not occur, the Applicant does not need to submit a subsidence control plan.

### **Findings:**

The information provided in the PAP meets the minimum requirements for the subsidence control plan of the regulations.

## **SLIDES AND OTHER DAMAGE**

Regulatory Reference: 30 CFR Sec. 817.99; R645-301-515.

### **Analysis:**

The Applicant has committed to notify the Division if a slide was to occur and to comply with any remedial measures required by the Division. The Applicant specifically states that they

would notify the Division by the fastest method available in the event of a slide. In addition, the Applicant agrees to comply with remedial measures required by the Division.

### **Findings:**

The information provided in the PAP is considered adequate to meet the minimum requirements of the slides and other damage section of the regulations.

## **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**

All roads with the possible exception of pit roads must be classified as primary or ancillary roads, R645-301-527.100. The Division considers pit roads to be roads in the active mining section of the refuse pile. The location of pit roads will change as mining progresses. In general, the Division does not require pit roads to be designed.

In Section 527.100-200 of the PAP the Applicant lists the roads that will be in the permit area and their classification. The list is shown in Table 527.100a.

The primary roads are the existing primary haul road also known as Road H, Road M a proposed haul road for piles B and C, and Road K the access road to the subsoil area. The ancillary roads are Road G to Pond 6, Road H to Pond 5 and Road L around Pond 9. The Division agrees with the road classification presented by the Applicant.

#### **Plans and Drawings**

There is one existing primary road and two proposed primary roads. The designs for the Primary Haul Road are shown on Map 534.100e, Table 527.100a and Section 527.210 of the PAP. The designs for the Primary Haul Road are as follows:

- The Primary Haul Road (Road H) is approximately 12 to 30 feet wide and the grade ranges from 0 to 11%. The road is constructed of dirt. After mining is completed, the road will be reclaimed. Road M will be 10-24 feet wide and the grade ranges from 0 to 10.9%. Road K will be 12-24 feet wide with a grade that ranges from 11.5 to 22.6%.
- The primary roads will not require the alternation of any intermittent or perennial streams or existing natural drainages.

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- The primary roads are designed so the all runoff will report to a sediment pond or a ditch.
- Because the primary road the designs have to be certified by a registered professional engineer. Scott Carlson, who is a professional engineer, certified the designs.
- The designs did mention that the stability factor for the road embankments 1.3 or greater.

The Division finds that the designs for the primary roads are adequate to meet the requirements of the R645-301-500 section of the regulations.

The Applicant has identified three existing ancillary roads that will be in the permit area. Those roads are Road G, Road H and Road L.

The design parameters for Road G are show on Map 534.100f, Table 527.100a and in Section 527.210 of the PAP. Reclamation for the roads is in Section 542.200 of the PAP. The designs for Road G show the following:

- The location and cross-sections for Road G are shown on Map 534.100f. The road will vary in width from 10 to 12 feet and grade ranges from 0 to 14.6%. The road provides access to Pond 6.
- Road G will not require modifications involving intermittent or perennial streams or existing natural drainages.
- Road G is designed so that all runoff will either report to a sediment pond or a ditch.
- The Applicant did state that all private roads within the permit area would be reclaimed. The commitment is stated in section 542.200 of the PAP.

The design parameters for Road H are show on Map 534.100d, Table 527.100a and in Section 527.210 of the PAP. Reclamation for the roads is in Section 542.200 of the PAP. The designs for Road G show the following:

- The location and cross-sections for Road H are shown on Map 534.100f. The road will vary in width from 10 to 12 feet and grade ranges from 0.8 to 12.2%. The road provides access to Pond 5. Note in Section 527.210 the Applicant states that Road H provides access to Pond 6, which is an error.
- Road H will not require modifications involving intermittent or perennial streams or existing natural drainages.
- Road H is designed so that all runoff will either report to a sediment pond or a ditch.
- The Applicant did state that all private roads within the permit area would be reclaimed. The commitment is stated in section 542.200 of the PAP.

The design parameters for Road L are show on Map 534.100b, Table 527.100a and in Section 527.210 of the PAP. Reclamation for the roads is in Section 542.200 of the PAP. The designs for Road L show the following:

- The location and cross-sections for Road L are shown on Map 534.100b. The road will vary in width from 10 to 25 feet and grade ranges from 0 to 7.3%. The road will be dirt and provide access from the north side of Refuse Pile A to Pond 9.
- Road L will not require modifications involving intermittent or perennial streams or existing natural drainages.
- Road L is designed so that all runoff will either report to a sediment pond or a ditch.
- The Applicant did state that all private roads within the permit area would be reclaimed. The commitment is stated in section 542.200 of the PAP.

The Applicant did state that all private roads within the permit area would be reclaimed. The commitment is stated in section 542.200 of the PAP.

### **Performance Standards**

The general performance standards are listed in R645-301-534.140, R645-301-534.150, R645-301-534.200 and R645-301-534.300. The Applicant is required to meet all performance standards.

### **Primary Road Certification**

Plate 534.100a and Plate 534.100e show the general designs for the Primary Haul Road. A registered professional engineer has certified the designs.

### **Other Transportation Facilities**

The Applicant stated that there is a railroad line within the permit boundary that is not under the control of the Applicant.

### **Findings:**

The information provided in the PAP is adequate to meet the minimum requirements of the road and other transportation facilities regulations.

## **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.

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**Analysis:**

**Disposal Of Noncoal Mine Wastes**

The Applicant committed to have dumpsters placed in a central location. Periodically the dumpsters will be emptied and the noncoal waste will be shipped to a state approved landfill. All hazardous wastes will be disposed of in accordance with RCRA.

**Coal Mine Waste**

At the Sunnyside Waste Fuel site all the material in the refuse piles is coal mine waste by definition. The mine plan calls for the material from the refuse piles to be transported to the Sunnyside power plant. Some of the material in the refuse pile may be unsuitable for fuel at the plant. That material must be disposed of on site.

The Applicant wants to take all the reject material and place it in the abandoned ponds. The Division will consider the ponds as disposal areas and not refuse piles unless MSHA issues a refuse pile identification number for that specific site. Should MSHA ever consider the coal mine waste disposal facilities to be refuse piles the Division will require the Applicant classify the areas as refuse piles and make the appropriate changes in the mining and reclamation plan. With the exception of an MSHA ID number, the Division will require the Applicant to comply with all regulations for refuse piles.

The requirements for a coal mine waste disposal facility are as follows:

- The disposal facility will be designed to attain a minimum long-term static safety factor of 1.5. On Table 542.700, the Applicant lists the material and design property and safety factor. The safety factor for the disposal area is 3.0.
- The foundation investigation for the disposal area was part of the prudent engineering design. There are no underground workings or other special concerns associated with the site.
- The Applicant committed to place all coal mine waste in a controlled manner to ensure mass stability and prevent mass movement during and after construction. The maximum slope at the coal mine waste disposal area will be a 4:1 slope.
- The design and location of the coal mine waste disposal areas as such that they will not create a public hazard. The design and construction of the disposal area is similar to the existing refuse piles, which are not public hazards.

- The coal mine waste disposal facilities will prevent combustion by placing mostly no combustible materials in the pile and by compacting the material.

The Division considers the designs for the coal mine waste disposal facilities to be adequate to meet the requirements of R645-301-536.

### **Refuse Piles**

There are three existing refuse piles at the site, A, B and C. The refuse piles are shown on several maps including Plate 521.100d and Plate 521.100e. Because of the nature of the project, no additional refuse will be placed on site. The mine plan calls for the refuse to be removed from the piles and sent to a cogeneration facility for burning.

The general requirements for refuse pile design are as follows:

- The refuse pile will be designed using current prudent engineering practices and will meet the design requirements of the Division. The Division has approved the design of the refuse piles as part of the Star Point MRP. Since the Applicant intends to remove material from the refuse piles instead of adding to them the Division will consider the design of the existing refuse piles adequate.
- The refuse piles must have a static safety factor of 1.5. The stability analysis for the refuse piles is in Exhibit 528.322a. The Applicant proposes to keep the slopes stable by maintaining a slope angle of 2H: 1V.
- No additional foundations will be constructed at that the site.

The refuse piles were designed and approved in the Star Point MRP.

### **Impounding Structures**

No impounding structures will be made from coal mine waste.

### **Burning And Burned Waste Utilization**

The Applicant will handle burning waste material by either removing it from the refuse pile and extinguishing it or by covering the burning material with inert material. The Applicant committed to using only employees trained in handling burning waste material for extinguishing the fires. This plan is similar to those approved by the Division and used by AML for dealing with coal waste fires.

### **Return of Coal Processing Waste to Abandoned Underground Workings**

The Applicant does not propose to place coal processing waste in underground workings.

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## Excess Spoil

### Findings:

The information provided in the PAP is considered adequate to meet the minimum requirements of the spoil and waste materials regulations.

## 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:

#### Impoundments

The sediment ponds, Pond 5, Pond 6 and Pond 9 were all constructed or approved under the Star Point permit.

The designs of the sediment ponds address the following requirements:

- None of the ponds meet the requirements of an MSHA pond.
- A registered professional engineer designed all ponds.
- Pond No. 5 has an embankment stability of 1.47. Pond No. 9 has an embankment stability of 1.5 or greater. The Applicant did not give a specific safety factor for Pond No. 6. Instead, the Applicant refers to a letter by Boyle Engineering dated November 16, 1981 that certifies the completion of the pond. The Division has approved the construction of Pond 6 as part of the Star Point Mine. In addition, Pond 6 is incised so stability should not be a major concern. Therefore, the Division finds that Pond 6 meets the minimum safety factor requirement.
- Since the ponds were approved in the Star Point permit the Division has already reviewed the ponds' construction, including foundation preparation.
- No highwalls are associated with the ponds.
- Inspections of the pond construction were handled under the Star Point permit.
- None of the ponds will be permanent; all ponds will be removed during final reclamation.

**Findings:**

The information provided in the PAP is considered adequate to meet the minimum requirements of the impoundment section of the hydrologic section of the operation plan.

**SUPPORT FACILITIES AND UTILITY INSTALLATIONS**

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

**Analysis:**

In section 526 of the PAP the Applicant lists the existing and proposed support facilities and utility installations. In Table 526.111a of the PAP, the Applicant lists the following existing structures:

- Coal Waste Refuse Pile
- Vegetation/Soil Test Plots
- Sediment Pond No. 5
- Sediment Pond No. 6
- Accounting/Surface Operations Office
- Surface Operations Bathhouse
- Surface Foreman's Office, Salt Storage, Achieves
- Excess Spoil Disposal Area (Former Pond Treatment Area)
- Concrete Slab (Part of fuel storage/dispensing structures that have been removed.)
- Shop Building
- Sediment Pond No. 9

In Table 526.11b of the PAP the Applicant lists the following proposed structures.

- Bermed containment area for portable tank with concrete slab.
- Bermed containment area for portable tank.

The Applicant states in Section 526.100-110 of the PAP that none of the buildings will receive electricity, water or sewage services.

**Findings:**

The information provided in the PAP is considered adequate to meet the minimum requirements of the support facilities and utility installations section of the regulations.

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## **SIGNS AND MARKERS**

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

### **Analysis:**

The Applicant committed in the MRP to post all signs and markers as required by R645-301-521.200. The following guidelines will be followed:

- The signs and markers will be posted, maintained and removed by SCA.
- The signs and markers will be built of durable material and conform to local laws and regulations.
- They will be in-place and maintained during all operation and reclamation activities
- They will be retained and maintained until after the release of all bonds.

### **Findings:**

The information provided in the PAP meets the minimum requirements for the signs and markers section of the regulations.

## **USE OF EXPLOSIVES**

Regulatory Reference: 30 CFR Sec. 817.61, 817.62, 817.64, 817.66, 817.67, 817.68; R645-301-524.

### **Analysis:**

No blasting is anticipated at the site therefore, no blasting plan or pre-blasting survey is needed.

### **Findings:**

The information provided in the PAP meets the minimum requirements for the use of explosives section of the regulations.

## **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**

The affected area should include the areas on which mining and reclamation activities will occur over the life of the mine. For the SCA/ Star Point Waste Fuel Refuse Pile those areas should be within the proposed permit boundaries. Several maps show the location of the permit boundaries including maps 521.100a, 521.100b and 521.100c. A professional engineer certified all the maps.

### **Mining Facilities Maps**

The mining facilities are shown on several maps including maps 521.100a, 521.100b and 521.100c. A professional engineer certified all the maps.

### **Mine Workings Maps**

Due to the nature of the project, detailed mine maps are not needed. Mining will consist of removing coal mine waste (refuse) from the refuse piles and shipping it to a cogeneration facility. What the Division is interested in is the configuration of the refuse piles before mining and the configuration after mine. The after mining configuration is shown on the reclamation maps, 542.200a and 542.200b. A professional engineer certified all the maps.

Map 521.100e, shows detailed the timing and sequence operations for the first 5 years. General timing and sequencing for the life-of-mine is also shown. The Division considers that map adequate.

### **Certification Requirements**

All maps submitted by the Applicant that need certification have been certified.

## **Findings:**

The information provided in the PAP is considered adequate to meet the minimum requirements of the maps, plans and cross-sections requirements for the operations section of the regulations.

## 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 term approximate original contour restoration means that the final surface configuration shall closely resemble the general surface configuration of the land before mining. The requirement does not mean that the post-mining and pre-mining configuration are the same. Rather, the term AOC means:

- The post-mining topography shall closely resemble the slopes of the surrounding area.
- Spoil piles will be eliminated
- Highwalls will be eliminated
- Drainage systems will complement those of the surrounding area.

Since mining will consist of removing coal mine waste (refuse) the mined area will be reclaimed to the near pre-disturbed contours. The post-mining contours will be similar to those of the surrounding area, a gently sloping topography.

No spoil piles or highwalls are associated with the permit area. The reclaimed drainage systems will be constructed so that it blends into the surrounding drainage systems.

There are two reclamation plans for the SCA/Star Point Waste Fuel Refuse Pile. The first is based on the assumption that all the refuse is removed and that the Applicant reclaims according to the approved plan. The second is based on the assumption that the Applicant is unable to remove the coal mine waste and must reclaim refuse at the site. The Division has reviewed the first reclamation scenerio and found that it meets the AOC requirements. The second scenerio is similar to the reclamation plan approved by the Division for the Star Point refuse pile, which is approved. In both cases the Applicant meets the minimum requirements for meeting AOC.

#### **Findings:**

The information provided meets the minimum Approximate Original Contour requirements of the Regulations.

## 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 general requirements for backfilling and grading are:

- The site meets the approximate original contour requirements.
- All highwalls, spoil piles and depressions are eliminated.
- All slopes have a safety factor of 1.3 or greater.
- The slopes minimize erosion and water pollution.
- The reclaimed area is compatible with the approved postmining landuse.

As stated in the AOC section of the TA the Applicant has shown that the reclaimed site will meet the minimum requirements for achieving AOC. No highwalls or spoil piles are on site and all depression will be eliminated.

The slopes will be gentle and blend into the surrounding areas. Such slopes will help minimize erosion and water pollution both on and off site. In addition the site will be compatible with the postmining landuse.

In addition, there are not settled and revegetated fill areas, or exposed coal seams. All coal mine waste will be covered.

Exposed coal seams, acid- and toxic-forming materials, and combustible materials exposed, used, or produced during mining shall be adequately covered with nontoxic and noncombustible materials, or treated, to control the impact on surface and ground water, to prevent sustained combustion, and to minimize adverse effects on plant growth and the approved postmining land use (R645-301-553.300).

Because of the nature of the project, the Applicant has two backfilling and grading plans. The bonding scenario is backed on the assumption that the Applicant will not be able to remove any coal mine waste. This plan is similar to the approved reclamation in the Star Point MRP. This plan is referred to as the bonding scenerio.

Under the bonding scenerio, the Applicant will grade the existing refuse piles to slopes no steeper than 3:1 and place 235,300 cubic yards of subsoil.

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The bonding scenerio reclamation plan is shown on Map 542.200a and Map 542.200b. Under the bonding scenerio the Applicant is required to fill in the ponds and grade the refuse pile slopes to a 3:1 grade or gentler. After the area has been grade subsoil will be taken from storage area and placed on all refuse material, see map 542.200f for details. The subsoil storage area will then be grade see Map 542.200c for details.

Since the Applicant has know way of knowing what shape the refuse piles will be in if all the refuse is not removed no intermediate reclamation plans were submitted.

If the Applicant is able to finish the removing all the refuse then the final reclamation plan calls for restoring the site to the original surface topography. Map 542.200g shows the topography of the site after all usable refuse has been ship to the power plant. The cross sections for this reclamation scenerio are shown on Map 542.200b. For the coal mine waste disposal area the detailed plans and cross-sections are shown on Map 521.100f.

No matter how much refuse is removed, the Applicant has committed to use all of the subsoil in the subsoil stockpile for cover at the site. Therefore, the reclamation plan for the subsoil area will not vary.

### **Previously Mined Areas**

The provisions of the previously mined area allow for highwalls to be retained under limited conditions. Because there are no highwalls in the permit area, this provision does not apply.

### **Findings:**

The information provided in the PAP is considered adequate to meet the minimum requirements of the backfilling and grading regulations.

## **MINE OPENINGS**

Regulatory Reference: 30 CFR Sec. 817.13, 817.14, 817.15; R645-301-513, -301-529, -301-551, -301-631, -301-748, -301-765, -301-748.

### **Analysis:**

There are no mine openings within the permit area.

**Findings:**

The information provided in the PAP meets the minimum requirements for the mine openings section of the regulations.

**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 Applicant states that all private roads within the permit area will be reclaimed when no longer needed. The roads will be dirt, so disposal of surfacing materials should not be a problem. Reclamation of the roads will be done by pulling fill back up from the down-slopes and placing it in the cuts. The replaced fill material will be shaped to conform to the adjacent terrain and to meet the natural drainage pattern. Water bars and cross drains may be constructed across reclaimed roads to minimize erosion where necessary. Barriers of native rock or earthen berms to prevent vehicular access will block the entrances to reclaimed roads.

Map 542.200a shows the reclamation surface for the site under the worst case bonding scenerio all roads are removed. Map 542.200e shows the reclaimed site after full mining and all roads are removed.

**Retention**

No roads in the permit area are scheduled to be retained.

**Findings:**

The information provided in the PAP meets the minimum requirements for the road system section of the regulations.

**CESSATION OF OPERATIONS**

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

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**TECHNICAL MEMO**

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**Analysis:**

The Applicant commits in section 515.300 to follow the requirements of R645-301-515.300 in the event of temporary cessation. The general commitments are to notify the Division if temporary cessation will last more than 30 days and to secure the site.

In section 541 of the PAP, the Applicant commits to reclaim the site once mining activities have been completed.

**Findings:**

The information provided in the PAP meets the minimum requirements for the cessation of operations section of the regulations.

## **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:**

### **Bonded Area Map**

The Division usually considers the bonded area to be the same as the disturbed area boundaries.

### **Reclamation Backfilling And Grading Maps**

The project has two possible backfilling and grading plans. The worst case scenerio is base on the assumption that as soon as the permit is issued the site will go into permanent reclamation. In that case, the refuse pile would be covered with substitute topsoil. Plans for the worst-case scenerio are shown on Map 542.200a with cross section on 542.200b. The reclamation plans for the best case scenerio are shown Map 542.200e. The plans for the substitute soil area are shown on Map 542.200c and 542.200d.

### **Reclamation Facilities Maps**

No facilities at the site will exist after reclamation.

### **Final Surface Configuration Maps**

The project has two possible final surface configurations. The worst case scenerio is base on the assumption that as soon as the permit is issued the site will go into permanent reclamation. In that case, the refuse pile would be covered with substitute topsoil. Plans for the worst case scenerio are shown on Map 542.200a with cross section on 542.200b. The reclamation plans for the best-case scenerio are shown Map 542.200e. The plans for the substitute soil area are shown on Map 542.200c and 542.200d.

### **Reclamation Surface And Subsurface Manmade Features Maps**

No surface features are planned nor are any subsurface manmade features known for the site.

### **Reclamation Treatments Maps**

No permanent reclamation treatment facilities are schedule for the site.

### **Certification Requirements.**

Maps and cross sections were certified by a registered professional engineer, as required.

### **Findings:**

The information provided in the PAP is considered adequate to meet the minimum requirements of the maps, plans and cross-sections for reclamation section of the regulations.

## **BONDING AND INSURANCE REQUIREMENTS**

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

### **Analysis:**

#### **Form of Bond**

The Division will review the form of the bond after the Permittee has acquired the bond but before the permit has been issued.

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**TECHNICAL MEMO**

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**Determination of Bond Amount**

The Division reviewed the information for reclamation cost estimates in the PAP. Since the Division has not approved the reclamation plan, the Division cannot complete the bond calculations. When the reclamation plan is approved the Division will calculate the bond amount.

**Terms and Conditions for Liability Insurance**

The Division will review the liability insurance policy after the policy has been acquired but before the permit has been issued.

**Findings:**

The Division has not been able to determine the amount of the bond.

**RECOMMENDATIONS:**

The permit application is recommended for approval.