

# TECHNICAL MEMORANDUM

## Utah Coal Regulatory Program

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#3463  
OK

February 2, 2010

TO: Internal File

THRU: Daron Haddock, Permit Supervisor

FROM: Peter Hess, En Sci III, Bonding *PHH* *by sos* *ORA*

RE: WINTER QUARTERS VENTILATION FACILITY, Canyon Fuel Company, LLC, Skyline Mine, C/007/005, Task ID # 3463

### SUMMARY:

The Permittee submitted an initial application on October 26, 2009 to permit a new airshaft, incline slope, and substation in Winter Quarters Canyon. The Division determined that the application was administratively complete on November 9, 2009. The Creek (a perennial stream) would have been culverted as part of that plan. The Permittee retracted that plan on November 25, 2009, after discipline reviews had been initiated.

On January 11, 2010, Canyon Fuel Company resubmitted the application for the Winter Quarters facility. In this application, Winter Quarters Creek will not be culverted. The proposed disturbed area (7.93 acres) will be moved to the north of the stream channel / buffer zone.

The Division technical review staff held a meeting on February 11, 2010 to discuss various concerns, which have been identified in the Task ID # 3463 application.

Three concerns are as follows:

- 1) the Task ID # 3463 application is unclear as to how the two vertical shafts and the slope incline will be reclaimed to permanently close the mine openings once mining activities are completed. The application does not commit to backfilling the two vertical openings. No designs have been submitted to ensure the stability of the backfill below the potentiometric surface.
- 2) The two vertical shafts identified in the Task ID # 3463 application will require at least 6,000 cubic yards of backfill in order to permanently reclaim them. The Permittee MUST provide an adjustment in the bond estimate costs to allow for the permanent reclamation (i.e., backfilling) of these mine openings.

- 3) The Task ID # 3463 application states that it is likely that the Winter Quarters slope incline will likely discharge water into the Creek after the Mine is closed. The Permittee needs to provide more information as to when it is anticipated this discharge will begin. The Permittee must provide a discussion as to how it will ensure that water quality parameters will be met post-Phase III bond release.

## **BONDING AND INSURANCE REQUIREMENTS**

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

### **Analysis:**

#### **General**

#### **Form of Bond**

The current bond held by the Division to ensure the reclamation of the Skyline Mine is a surety bond issued by the St. Paul Fire and Marine Insurance Company. The current bond amount is \$ 5,137,000.00. The A.M. Best rating of the surety is "A+" as of December 31, 2009.

#### **Determination of Bond Amount**

The Permittee has submitted preliminary cost sheets for the demolition, earthwork and re-vegetation costs for the 7.93 acres of disturbance associated with the Winter Quarters Ventilation Facility.

The Permittee anticipates that it will cost \$ 52,888.00 to demolish and dispose of the proposed surface facilities at Winter Quarters.

The Permittee anticipates that it will cost \$ 21,781.00 to perform the backfilling and grading. This includes \$ 11,876 for backfilling and grading and \$ 9,900 to re-topsoil the disturbed area.

The Permittee has not provided soil volumes in the calculations for backfilling and grading of the surface disturbed area to approximate original contour. The Permittee needs to explain the calculations for the Earthwork Costs submitted with the bond estimate calculation.

Section 2.2.12 Winter Quarters Ventilation Facility application, page 2-21(b) contains the following; "when sealing at reclamation, the shaft(s) per 30 CFR Part 75.1711-1 and R645-301-551 will be fitted with a minimum 6-inch thick cement cap, encased in an approximately 5-foot thick cement collar, vented with a minimum 2-inch

diameter pipe extending a minimum of 15-feet above the cap and backfilled to the surface.

The submitted drawing depicts a two-inch vent pipe extending 15 feet above the concrete shaft cap. Fill is depicted as being placed over the cap, leaving a stub length of pipe out of the fill. The pipe must extend 15 feet above the land surface elevation making it very difficult for an ignition source to be presented to the venting pipe opening. The vent pipe must be re-drawn and re-submitted.

The design submitted within this text is not clear; the Permittee must submit a cross-section, which shows the elevation of the concrete cap in relation to the elevation of the final surface configuration of the land. The cross-section must show that the 20-foot and the 8-foot diameter shafts are backfilled from the bottom of the coal seam to the surface.

The Division estimates that it will take a minimum of 4,100 CY of material to backfill the 20-foot diameter shaft, 2,160 CY of material to backfill the 8-foot diameter shaft and 225 CY to backfill the slope out by the seal.

The backfill cost estimate submitted does not include the cost to backfill the above soil volume (6485 cubic yards (4100 + 2160 + 225)) associated with the three mine openings.

The application is deficient.

In accordance with the requirements of:

**R645-301-551**, Casing and Sealing of Underground Openings

The Permittee must commit to backfilling the two vertical mine openings associated with this permit amendment from the bottom of the coal seam to the surface.

The Division considers complete backfilling to be the method necessary to permanently close the mine openings, in accordance with R645-301-529.100. The Division is authorized to properly manage the closure methods for these mine openings.

In accordance with the requirements of:

**R645-301-513.500**, the capping, sealing and backfilling of the Winter Quarters airshafts must meet the requirements of 30 CFR 75.1711-1. See R645-301-551.

In accordance with the requirements of:

**R645-301-830.140**, the Permittee must provide supporting calculations for the backfilling and grading and topsoiling costs submitted as part of the Task ID # 3463

application. The numbers utilized in the submitted application must be justified in order that the review of the submitted figures can be determined as accurate.

The Permittee must provide supporting calculations to show how the time requirements were determined for the trackhoe, dozer and pickup crew 4 X 4 for the backfilling and topsoiling costs for the pad area.

### **Terms and Conditions for Liability Insurance**

The Permittee maintains a general liability insurance policy (policy # GLO93-61-11) through the National Union Fire Insurance Company, Pittsburgh, Pa. The insurance company has an A.M. Best rating of "A". The current policy period remains in effect through July 31, 2010. Coverage for damage from the use of explosives is provided. The information as listed is current within the Division, as of December 31, 2009.

### **Findings:**

The Permittee must address the aforementioned deficiencies before receiving a recommendation for approval.

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