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TECHNICAL MEMORANDUM

Utah Coal Regulatory Program

March 8, 2011

TO: Internal File

THRU: Jim Smith, Permit Supervisor *DS 03/10/11*

FROM: April A. Abate, Environmental Scientist III, Lead *AAA 3/10/2011*

RE: Construction of West Lease Portals, Canyon Fuel Company, SUFCO Mine, 041/002 Task #3739

SUMMARY:

On February 9, 2011, Canyon Fuel Company submitted an amendment to the Division of Oil, Gas and Mining (the Division) requesting approval for the construction of two new concrete tunnels into the portals to access the West Lease coal area and expand operations of the mine.

The Division permitted three new portals for the West Lease Area under Task #3548 in 2010. The grade from portals 1 and 2 (from west to east) was determined to be too steep and therefore required the mine to propose two new concrete tunnels that will run under the upper mine yard and daylight in the existing coal storage area of the lower mine yard.

A construction drawing was submitted depicting the proposed locations of the concrete tunnels that will lead into Portals 1 and 2. Portal 1 will serve as the coal beltline tunnel and Portal 2 will serve as the Main Haulage tunnel. The main haulage tunnel will also be equipped with a concrete vent shaft to allow for additional ventilation of the mine. The construction of the tunnels will require several surface features to be demolished and/or relocated.

The existing 42" culvert that drains undisturbed drainage from Mud Spring Hollow will be replaced with a new culvert that ties into the main 72" bypass culvert that routes all undisturbed drainage off the permit area. Furthermore, a portion of the 72" inch main bypass culvert that runs beneath some existing structures will be capped and replaced with 480' of culvert that is to be rerouted such that it will not run beneath any existing structures.

TECHNICAL MEMO

TECHNICAL ANALYSIS:

OPERATION PLAN

EXISTING STRUCTURES:

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

Analysis:

The mine is proposing to relocate two of its principal culverts that drain undisturbed drainage from the upgradient canyons surrounding the mine. A 42" inch culvert that drains undisturbed drainage from Mud Spring Hollow Canyon, a side canyon located west of the upper mine yard. The mine is proposing to remove an approximate 190 foot section of the existing culvert and replace it with approximately 445 feet section such that it parallels the westernmost tunnel/portal that is to become the West Lease Beltline. According to the construction drawing submitted by the mine, the replacement culvert will ultimately tie in to the main 72" bypass culvert that runs beneath the surface facilities.

A portion of the main bypass culvert will also be relocated at this time. The mine is planning to cap off a portion of the culvert that runs beneath the truck shop, the steam cleaning building and the maintenance office. The rerouted culvert will extend approximately 500 feet and will be located east of the West Lease Main Haulage Tunnel. The purpose of this rerouting was to avoid the culvert from running beneath structures making access to the culvert difficult in the event maintenance is needed.

Findings:

The length of culvert itemized in the bonding calculations spreadsheet (page 12) accounts for entire 445' length of replacement culvert from Mud Spring Hollow. In addition, the bonding calculation spreadsheet accounts for the additional 480' length of culvert needed for the main 72" bypass culvert. The abandoned section of the main 72" bypass culvert that is to remain in place is accounted for as well.

The bonding calculations relating to the Mud Spring Hollow culvert and the Main 72" bypass culvert are accurate and are considered adequate.

Diversions: General

The interception ditches for the watersheds affected by the West Lease Portals that route the undisturbed drainage to the Mud Spring Hollow and Main Bypass culverts will remain unchanged. These watersheds include: MSH-1, MSH-2, MSH-2A, and ESC-7 as shown on Drawing 7-6v.7. Therefore, the amount of undisturbed runoff that can be expected to flow into the 42" and 72" culverts is not expected to change. The culverts are designed to adequately handle the 10-year, 6-hour storm event. This amendment will not require an alteration to the design details of the culverts.

Findings:

In accordance with R645-301.742.333, the culverts in the current approved plan have met the design standards to adequately convey runoff from a 10-year, 6-hour storm event. No resizing of the culverts is required since the runoff from the undisturbed watersheds that affect the West Lease Portals remains unchanged.

RECOMMENDATIONS:

The amendment is recommended for conditional approval upon receipt the updated Plates 5-2A, 5-2B, and 7-6.