


TECHNICAL MEMORANDUM

Utah Coal Regulatory Program

February 7, 2011

TO: Internal File

THRU:  Priscilla Burton, Team Lead

FROM: James D. Smith, Environmental Scientist III *DS 02/09/11*

RE: IBC, Canyon Fuel Company, Skyline Mine, Skyline Mine, Permit # C007/0005, Task ID #3727

SUMMARY:

The Division received the application for this IBC to the Skyline Mine permit on September 16, 2010, and a letter listing several deficiencies was sent to the Permittee on October 25, 2010. The Permittee responded on January 11, 2011.

The IBC, located east of the currently approved longwall panels that are located north of the Winter Quarter Canyon graben, adds approximately 320 acres to the area previously approved for underground mining operations. In order to maximize coal recovery, the Permittee has determined that the longwall panels must be laid out east-west rather than north-south as presently shown in the MRP; this change requires the addition of the 320-acre IBC, which extends to the east, where overburden thins as the surface elevation drops. .

Agapito Associates, Inc. (AAI) conducted a study (Appendix Volume A-1, Volume 2: Woods Canyon Subsidence Study) which concludes that longwall mining in the Woods Canyon area can be conducted with overburden as thin as 475 feet. The proposed IBC addition would leave 500 ft under the stream in Woods Canyon at the east end of the IBC. The perennial stream in Woods Canyon, which flows from west to east, is oriented approximately parallel to the long axis of the realigned longwall panels 11L and 12L.

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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.

HYDROLOGIC RESOURCE INFORMATION

Regulatory Reference: 30 CFR Sec. 701.5, 784.14; R645-100-200, -301-724.

Analysis:

Probable Hydrologic Consequences Determination

The PHC determination has been updated on p. 2-51d.

The AAI study indicates longwall mining can be conducted in the Woods Canyon area with overburden down to 475 feet. Woods Canyon Creek overlies the center of planned Panel 11 Left, with overburden ranging from approximately 1000 ft to 500 ft. The AAI study predicts up to 6 feet of subsidence, with the formation of pools and cascades along Woods Canyon creek. As per AAI's recommendation, to the extent feasible, panel layout should minimize impacts to the stream by centering panel 11L beneath the stream in Woods Canyon.

The Permittee has concluded that the combination of geology, cover, the location of the panel under the center of the creek, and the minimal aquatic habitat available in Woods Canyon Creek all support that there will be minimal probable hydrologic consequences to mining further east – under the IBC – in Woods Canyon. Monitoring of the creek and the shallow groundwater in the creek bottom, along with macroinvertebrate and fish monitoring and vegetation monitoring of the stream corridor will detect any impacts to the creek. Detailed discussions of water monitoring are in Sections 2.3 and 2.4, the aquatic wildlife resources are discussed in Section 2.8, and the subsidence control plan discussed in Section 4.17 of this M&RP.

Findings:

The proposed amendment meets the requirements of the Utah Coal Mining Rules.

RECOMMENDATIONS:

The Division should approve this amendment for insertion into the MRP.