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TECHNICAL MEMORANDUM

Utah Coal Regulatory Program

June 5, 2012

TO: Internal File

THRU: Priscilla Burton, Lead *PB by SAS*

FROM: Ingrid Campbell, Biology *IC*

RE: CIR Monitoring Reduction, Canyon Fuel Company, Skyline Mine, C0070005, Task#4096

SUMMARY:

On May 14, 2012, the Division received an application from Canyon Fuel Company (CFC) to remove Color infrared photography (CIR) monitoring from their subsidence control plan within the Skyline Mining and Reclamation Plan (MRP). CFC submitted a report reviewing the results of the CIR monitoring between 2005 and 2012. The report concluded that CIR monitoring is no longer needed.

This application is not recommended for approval at this time. Prior to approval the permittee must provide the following in accordance with:

R645-301-332: CFC must remove the contradictory commitment for CIR monitoring in the North Lease area and explain what alternative methods they will use to describe how anticipated impacts to renewable resources will be identified and mitigated.

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TECHNICAL ANALYSIS:

OPERATION PLAN

VEGETATION

Regulatory Reference: R645-301-330, -301-331, -301-332.

Analysis:

The application includes a report from Dr. Patrick Collins from Mt. Nebo Scientific that analyzes the vegetation differences of color infrared photos taken between 2005 and 2011 of subsidence areas in the skyline mine. Dr. Collins did not detect any major vegetation differences due to undermining from the photographs. Dr. Collins concluded that CIR monitoring is no longer needed. In addition to CIR monitoring, CFC submits quantitative vegetation monitoring of riparian areas before, during and after undermining in order to detect impacts on the vegetation from mining. This quantitative monitoring provides much more useful data that can be more easily tied to mining impacts rather than just local climate change. Therefore, CFC proposes in this amendment to discontinue CIR monitoring for the skyline mine.

The Skyline MRP contains (according to R645-301-332) a description of the anticipated impacts of subsidence³ on renewable resource lands and how such impact will be mitigated in section 4.17 of Chapter 4 of the MRP. Possible impacts to vegetation from undermining are limited to damage from earth movement and loss of water. Full extraction mining is not proposed under streams. Streams that will be undermined using room and pillar mining are extensively monitored for stream flow and vegetation changes before, during and after mining. Additionally, piezometers were placed to analyze the underground and surface water impacts. CFC has committed to replacing the water if damage occurs from mining. Water replacement will effectively mitigate any damage to vegetation from water loss.

Page 4-101, section 4.17.8 of the MRP explains that CIR monitoring will occur in the North Lease Area to identify impacts to renewable resources from undermining. This is contradictory from the amended paragraph on page 4-99. CFC must remove this commitment for the North Lease area and explain what methods they will use in the North Lease area to describe the anticipated impacts on renewable resource lands and how these impacts will be mitigated.

Findings:

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The information provided in the application met the requirements of the following regulations:

R645-301-332: The mining and reclamation plan includes a description of the anticipated impacts of subsidence on renewable resource lands. Riparian vegetation surveys and water monitoring will identify any potential impacts to renewable resource lands. CFC proposes that mitigation for damage to renewable resources will be developed on a case-by-case basis and does commit to water replacement.

Additionally, the following information must be provided prior to the Division's approval of this amendment in accordance with:

R645-301-332: CFC must remove the contradictory commitment for CIR monitoring in the North Lease area and explain what alternative methods they will use to describe how anticipated impacts to renewable resources will be identified and mitigated.

RECOMMENDATIONS:

This application is not recommended for approval.