

TECHNICAL MEMORANDUM

Utah Coal Regulatory Program

September 29, 2008

TO: Internal File

THRU: Steve Christensen, Hydrologist, Team Lead *SKC*

FROM: Priscilla W. Burton, CPSSc, Environmental Scientist III

RE: Revision to Degas Amendment – 30 Day Commitment, Canyon Fuel Company, Dugout Canyon Mine, C/007/0039, Task ID #3025

SUMMARY:

As-Built information for gas wells #18, #31 and the AMV road, constructed in the Fall 2007 was received on August 6, 2008 as per MRP **Methane Degas Volume** Section 234.200 and 240 to provide topsoil stockpile location and construction information. The following clarifications are requested for this as-built information.

R645-301-121.200, Table 2-2 provides stockpile dimensions derived from as-built mapping based upon aerial photography. Since these dimensions are no longer approximations, the Permittee should remove the first statement following the asterisk below the table. •As-Built information for gas wells #18, #31 and the AMV road, constructed in the Fall 2007 was received on August 6, 2008 as per MRP Methane Degas Volume Section 234.200 and 240. The narrative on page 2-16 and 2-17 should indicate that this information is no longer outstanding and has been provided. • Attach. 5-4 Plate 3 provides cross sections of the 8 stockpiles. Please evaluate the accuracy of cross sections for stockpiles T-4, T-8, and T-9, which are open ended. • An average of one foot of topsoil was removed from all disturbed areas (Attach. 5-4, As-Built Areas and Cut/Fill Volumetrics). Consequently, there may be 31,121 cubic yards stored in 8 stockpiles designated T 2 – 9 on Attach. 5-4 Plate 1. However, Degas Volume Table 2-1 suggests that only 15,828 cubic yards of soil stockpiled for the degas wells #18, #31 and the AMV road. Based upon the as-built cross-sections, please verify the volume of soil stored in topsoil stockpiles T 2 – 9 and edit Table 2-1 accordingly.

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TECHNICAL ANALYSIS:

OPERATION PLAN

TOPSOIL AND SUBSOIL

Regulatory Reference: 30 CFR Sec. 817.22; R645-301-230.

Analysis:

Topsoil Removal and Storage

As-Built information for gas wells #18, #31 and the AMV road, constructed in the Fall 2007 was received on August 6, 2008 as per MRP **Methane Degas Volume** Section 234.200 and 240 to provide topsoil stockpile location and construction information. This request was made to ensure stability of topsoil stockpile placement. The narrative on page 2-16 and 2-17 should indicate that this information is no longer outstanding and has been provided.

Table 2-2 provides stockpile dimensions derived from as-built mapping based upon aerial photography. Since these dimensions are no longer approximations, the Permittee should remove the first statement following the asterix below the table.

The total disturbed acreage for degas wells #18, #31 and AMV road is 19.29 acres. The AMV road is 6,705 ft. long. An average of one foot of topsoil was removed from all disturbed areas (Attach. 5-4, As-Built Areas and Cut/Fill Volumetrics). Consequently, there may be 31,121 cubic yards stored in 8 stockpiles designated T 2 – 9 on Attach. 5-4 Plate 1. However, Degas Volume Table 2-1 suggest that only 15,828 cubic yards of soil stockpiled for the degas wells #18, #31 and the AMV road. Based upon the as-built cross-sections, please verify the volume of soil stored in topsoil stockpiles T 2 – 9 and edit Table 2-1 accordingly. Attach. 5-4 Plate 3 provides cross sections of the 8 stockpiles. Please evaluate the accuracy of cross sections for stockpiles T-4, T-8, and T-9, which are open ended. The information provided in Attach. 5-4 Plate 3, indicates that the sideslopes of stockpiles T-5, T-6, and T-7 are quite steep (1.5h:1v, 1.6h:1v, and 1.8h:1v, respectively). Stockpiles T-2, T-3, and T-10 have lesser slopes of 2h:1v or less.

The total acreage disturbed by all degas wells and associated access roads is 45.5 acres.

Findings:

R645-301-121.200, Table 2-2 provides stockpile dimensions derived from as-built mapping based upon aerial photography. Since these dimensions are no longer

approximations, the Permittee should remove the first statement following the asterix below the table. •As-Built information for gas wells #18, #31 and the AMV road, constructed in the Fall 2007 was received on August 6, 2008 as per MRP Methane Degas Volume Section 234.200 and 240. The narrative on page 2-16 and 2-17 should indicate that this information is no longer outstanding and has been provided. • Attach. 5-4 Plate 3 provides cross sections of the 8 stockpiles. Please evaluate the accuracy of cross sections for stockpiles T-4, T-8, and T-9, which are open ended. • An average of one foot of topsoil was removed from all disturbed areas (Attach. 5-4, As-Built Areas and Cut/Fill Volumetrics). Consequently, there may be 31,121 cubic yards stored in 8 stockpiles designated T 2 – 9 on Attach. 5-4 Plate 1. However, Degas Volume Table 2-1 suggest that only 15,828 cubic yards of soil stockpiled for the degas wells #18, #31 and the AMV road. Based upon the as-built cross-sections, please verify the volume of soil stored in topsoil stockpiles T 2 – 9 and edit Table 2-1 accordingly.

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

Plans and Drawings

Attachment 2-4, Plate 1 shows the profile of the road. Between station 12:00 and station 13:00 the road was constructed on approximately 20 feet of compacted fill and boulders. This construction was preferred over a route that would have crossed an ephemeral stream channel at this location. Other less significant fills occurred in conjunction with culvert placements in the vicinity of Stations 3+00 and 6+00 where the road crosses other ephemeral channels. The road to follows the contour of the mountainside and required cuts of 15 feet or less in a few locations. The grade of the road is approximately 10% over its length.

Findings:

The information provided meets the requirements of the Utah Coal Rules.

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RECOMMENDATIONS:

The application is not recommended for approval at this time, see deficiencies above. An engineer may wish to evaluate the bonding costs for the road in light of the revision to the construction plans noted under "Road Systems and Other Transportation Facilities" above.

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