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State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

May 9, 2019

John Byars, General Manager
Canyon Fuel Company, LLC
597 South SR24
Salina, Utah 84654

Subject: South Fork Lease Modification, Canyon Fuel Company, LLC, Sufco Mine,
C/041/0002, Task #5920

Dear Mr. Byars:

The Division has reviewed your application. The Division has identified deficiencies that must be addressed before final approval can be granted. The deficiencies are listed as an attachment to this letter.

The deficiencies authors are identified so that your staff can communicate directly with that individual should questions arise. The plans as submitted are denied. Please resubmit the entire application by no later than June 10, 2019.

If you have any questions, please call me at (801) 538-5350.

Sincerely,

Steve Christensen
Coal Program Manager

SKC/sqs

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Technical Analysis and Findings

Utah Coal Regulatory Program

PID: C0410002
TaskID: 5920
Mine Name: SUFCO MINE
Title: SOUTH FORK LEASE MODIFICATION

Environmental Resource Information

Historic and Archeological Resource Information

Analysis:

The application does not meet the State of Utah R645-301-411 requirements for Historic and Archeological Resource Information. Evidence of clearance by the Utah State Historic Preservation Office is not found in the application. These clearances were obtained by DOGM in February 2019 and subsequently sent to SUFCO representatives and their inclusion in the MRP was requested. This information included concurrence of no historic properties affected from the SHPO as well as a letter from the Paiute Indian Tribe of Utah indicating no objections to the project.

Deficiencies Details:

The amendment does not meet the State of Utah R645-301-411 requirements for historic and archeological resource information. The following deficiency must be addressed prior to final approval:

R645-301-411.142: The application must include clearances by the SHPO for the proposed project.

tmiller

Hydro Baseline Information

Analysis:

The amendment meets the State of Utah R645 requirements for Baseline Information.

The amendment provides baseline information for the surface water and groundwater resources within and adjacent to the area proposed for mining. The information is included in Appendix 7-29 in narratives, tables and figures as well as in Plates 7-2, 7-3 and 7-10. Tables 1 and 2 and Figure 2 in Appendix 7-29 provide the monitoring site locations and five years of baseline monitoring quality and quantity data for each site.

Baseline monitoring sites and data are provided in Tables 1 and 2. The baseline monitoring springs and stream monitoring sites are distributed across all the surficial geologic units within the lease area. Monitoring has taken place at the sites during the 2nd, 3rd, and 4th quarters for over four years, establishing baseline variability of quantity and quality and both low and high flows. The water quantity and quality data is provided in Table 2 within Appendix 7-29, with stiff diagrams also provided in Figure 6.

kstorrar

Probable Hydrologic Consequences Determination

Analysis:

The amendment meets the State of Utah R645 requirements for Probable Hydrologic Consequences Determination.

The amendment provides narratives, maps and data on baseline surface and groundwater information for the South Fork Lease modification in Appendix 7-29. Baseline water monitoring of the proposed mining area began in 2013 and continues through to the present. These baseline data are analyzed to make the determination that no impacts to water quality and quantity are anticipated during coal mining and reclamation operations. Additional factors supporting these findings include a summary description of the climate and geology for the mining area.

The character of the geologic formations in the overburden reduces the potential for impacts to the hydrologic balance. Overburden ranges from about 1,300 to 2,600 feet in the proposed mining area. Subsidence will likely have little to no impact on surface water features and shallow aquifers. The presence of interbedded layers of impermeable claystone will help to seal cracks and prevent downward migration of surface and shallow sub-surface water resources during active mining. The brittle Castlegate Sandstone does not outcrop within the lease area. Reducing the likelihood of impacts to surface water resources as seen in the past mining in the Pines lease.

The South Fork Lease Modification is a small extension onto the western edges of the Quitchupah and Greens Hollow Leases. The mining techniques implemented in the Quitchupah lease will be implemented in this this small lease modification as well. Therefore, no adverse impacts due to acid-forming or toxic-forming materials, sediment yields from disturbed areas, flooding or streamflow alteration or to groundwater and surface water availability are anticipated to occur.

kstorrar

Maps Archeological Site Maps

Analysis:

The application does not meet the State of Utah R645-301-411 requirements for archeological site maps. The included map, Plate 5-10C, is designed to indicate the location of archeological sites. However, the isopach contour lines on this particular plate are so heavy that the information cannot be easily read, in some cases the lines are so thick that the site identification number is obscured by the contour lines.

Deficiencies Details:

The application does not meet the State of Utah R645-301-411 requirements for Archeological Site Maps. The following deficiency must be addressed prior to final approval:

R645-301-411.141: Plate 5-10C "Potential Subsidence Limits" must be redesigned such that the isopach contour lines do not obscure the relevant information on the plate.

tmiller

Operation Plan

Subsidence Control Plan Subsidence

Analysis:

The application does not meet the State of Utah requirements for Subsidence Control Plans.

The application does not satisfy the subsidence control plan requirements because the descriptions on several included plates are not clear. The Potential Subsidence Limits maps (Plates 5-10 and 5-10C) include an illustration of the underground mine workings overlain with surface facilities and overburden isopach contours, although the overburden isopach contours are not called out in the legend. Also indicated in the legend is linework that illustrates the potential subsidence limits but is not legible within the plate due to the overlying isopach contours which tend to obscure all other features.

Deficiencies Details:

The application does not meet the State of Utah requirements for Subsidence Control Plans. The following deficiency must be addressed prior to final approval:

R645-301-121.200, R645-301-521.142, R645-301-525.110: Permittee must make changes to Plates 5-10 and 5-10C since the linework illustrating the Limit of Potential Subsidence cannot be seen due to the overbearing isopach contours. Additionally, the overburden isopach contours must be called out in the legend.

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Fish and Wildlife Protection and Enhancement Plan

Analysis:

The application meets the State of Utah R645-301-322 requirements for Fish and Wildlife Protection and Enhancement Plan. Appendix 3-17 of the amendment includes a report titled "A Biological Assessment and Biological Evaluation for the South Fork Federal Coal Lease Modifications" created by Tetra Tech in 2018. This report details consultations with the Utah DWR, the U.S. FWS, as well as the Fishlake and Manti-La Sal National Forests. The results of these consultations make up the primary portion of the report. DOGM consultation with state and federal agencies in 2019 did not reveal any additional concerns relating to this amendment. There is not anticipated to be any impact to state or federally protected wildlife or plant species as a result of the proposal.

tmiller

Fish and Wildlife Endangered and Threatened

Analysis:

The application meets the State of Utah R645-301-358 requirements for Endangered and Threatened Fish and Wildlife. Appendix 3-17 of the amendment includes a report titled "A Biological Assessment and Biological Evaluation for the South Fork Federal Coal Lease Modifications" created by Tetra Tech in 2018. This report details potential impacts to federally endangered, threatened, and proposed species as well as Fishlake and Manti-La Sal National Forest sensitive wildlife, plant, and management indicator species. Due to the lack of species occurrences, habitats, impacts to habitats, and potential mitigation measures, no impacts or effects are expected to occur to any of the identified species. Consultation with state and federal agencies did not reveal any additional concerns relating to this proposal.

tmiller

Fish and Wildlife Bald and Golden Eagles

Analysis:

The application meets the State of Utah R645-301-322 requirements for Fish and Wildlife Bald and Golden Eagles. No known bald or golden eagle nests are located within or near the area of potential subsidence. Consultation with Manti-La Sal National Forest did not reveal any additional eagle nesting concerns relating to this proposal. SUFCO has committed to performing a raptor survey in the South Fork Lease Modification area in 2019 and beyond as described in Section 3.3.3.3 of the MRP.

tmiller

Hydrologic Ground Water Monitoring

Analysis:

The amendment does not meet the State of Utah R645 requirements for Groundwater Monitoring.

The amendment does not propose to add groundwater monitoring sites to the operational water monitoring program within the zone of maximum subsidence for the three proposed panels. All of the proposed spring groundwater monitoring sites fall outside of the extent of the panels. The water right 94-1397 shall be added to the operational water monitoring program in order to ensure surface and shallow subsurface water resources are not impacted in areas that will experience maximum subsidence.

Deficiencies Details:

The application does not meet the State of Utah R645 requirements for Groundwater Monitoring. The following deficiency must be addressed prior to final approval:

R645-301-731.200: The water right 94-1397 shall be added to the operational water monitoring program in order to ensure surface and shallow subsurface water resources are not impacted in areas that will experience maximum subsidence.

Hydro Surface Water Monitoring

Analysis:

The amendment does not meet the State of Utah R645 requirements for Surface Water Monitoring.

The amendment does not add stream water monitoring sites in any zones of subsidence for the proposed panels. A stream water monitoring site shall be added along the South Fork of Quitcupah Creek with the boundary of the proposed southernmost longwall panel.

Deficiencies Details:

The amendment does not meet the State of Utah R645 requirements for Surface Water Monitoring. The following deficiency must be addressed prior to final approval:

R645-301-731.200: A stream water monitoring site shall be added along the South Fork of Quitcupah Creek with the boundary of the proposed southernmost longwall panel.

kstorrrar

Maps Monitoring and Sampling Locations

Analysis:

The amendment does not meet the State of Utah R645 requirements for Monitoring and Sampling Location Maps.

The monitoring locations on the baseline monitoring map 'Figure 2' in Appendix 7-29 do not align with monitoring locations on Plate 7-2, Plate 7-3, and Plate 7-10. For instance on one map the North Fork Upper water monitoring site falls outside of the lease boundary and on the other map it falls inside of the lease boundary. All baseline and operational water monitoring locations must be reconciled for all maps, plates, and figures within the amendment.

The sites added to the water monitoring program in 'Table 7-2' and sites added to the water monitoring maps are not consistent. A total of nine sites are proposed to be added to 'Table 2, Water Monitoring Program', but a total of 11 sites are being added to 'Plate 7-10, Operational Hydrologic Monitoring Stations'. Both the water monitoring program table and the water monitoring map shall have the same sites added to the MRP.

Deficiencies Details:

The amendment does not meet the State of Utah R645 requirements for Monitoring and Sampling Location Maps. The following deficiencies must be addressed prior to final approval:

R645-301-731.700: The monitoring locations on the baseline monitoring map 'Figure 2' in Appendix 7-29 do not align with monitoring locations on Plate 7-2, Plate 7-3, and Plate 7-10. For instance on one map the North Fork Upper water monitoring site falls outside of the lease boundary and on the other map it falls inside of the lease boundary. All baseline and operational water monitoring locations must be reconciled for all maps, plates, and figures within the amendment.

The sites added to the water monitoring program in 'Table 7-2' and sites added to the water monitoring maps are not consistent. A total of nine sites are proposed to be added to 'Table 2, Water Monitoring Program', but a total of 11 sites are being added to 'Plate 7-10, Operational Hydrologic Monitoring Stations'. Both the water monitoring program table and the water monitoring map shall have the same sites added to the MRP.

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