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State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

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June 16, 1997

Kenneth E. May, General Manager
Canyon Fuel Company, LLC
SUFCO Mine
397 South 8th West
Salina, UT 84564

Re: Chapter 7 Revision Amendment to MRP, Canyon Fuel Company, LLC, SUFCO Mine, ACT/041/002-97A, Folder #2, Sevier County, Utah

Dear Mr. May:

A review of your submittal dated March 27, 1997 by Pete Hess, Steve Johnson, and James Smith, Reclamation Specialists for the Division, indicated the following deficiencies, as well a copy of the comments from the Forest Service is attached for your review and response. Please address these deficiencies by no later than July 14, 1997.

R645-301-724.200, The baseline surface-water descriptions will include information to describe baseline, rather than current, quality and quantity characteristics.

R645-301-728.333, Canyon Fuel must make a probable hydrologic consequences determination for increase surface water quantity under seasonal flow conditions.

R645-301-731.220, Canyon Fuel must conduct surface-water monitoring in accordance with the plan approved under R645-301-731.220. Because there is an existing water monitoring plan Canyon Fuel must show cause for removed monitoring location and parameters from the surface-water monitoring plan.

R645-301-121.200, -724.300, The USFS has pointed out that geologic information on page 41 of Appendix 7-17, Section 6.1.5.4 is titled as a summary of lower Blackhawk Formation groundwater, but the discussion is of the Upper Blackhawk Formation. This discrepancy should be corrected.

R645-301-121.200, -724.100, Paragraph 3 on page 7-34 states that a greater saturated thickness of the Blackhawk Formation is encountered as mining proceeds away from North Fork of Quitchipah Creek, and more water is available for discharge into the mine. The USFS feels further discussion is needed to establish the extent and location of this increase in saturated thickness in the Blackhawk Formation, especially considering that the rest of the proposed amendment presents the Blackhawk Formation as not being uniformly saturated. The increase in saturated thickness in the Blackhawk Formation should be further discussed to clarify the extent and location of this saturated zone.

R645-301-724, There are several stock-watering ponds in and adjacent to the permit area. Names, locations, and ownership of impoundments, such as Rock, Hans, and Johnson Ponds, are not described in Chapter 7 nor shown on a map. Names, locations, and ownership should be added to maps and discussed in the text.

R645-301-731, There are three permitted discharge points for the Convulsion Canyon Mine; discharge points UPDES 001 and UPDES 002 are shown on Plate 7-2, but UPDES 003 is not shown. It should be shown on Plate 7-2.

R645-301-121.200, -724.100, -727, -728, -731, -731.100, USFS comments point out that Stipulation 17 of the USFS lease requires that the lessee replace the loss of any surface water identified for protection, not just water covered by water rights. Commitments in the proposed permit that appear to limit the permittee to replacement of water rights only are not acceptable to the USFS and should be removed as they do not excuse the permittee from this lease obligation.

R645-301-724.400, -728, -731, -731.200, Declines of flow from several springs and declines in water level in several wells are attributed to drought conditions. The drought conditions are supposedly indicated by precipitation data in Appendix 7-5 and Figure 2 of Appendix 7-17, but these referenced sections do not contain data that clearly substantiate a drought over the period of time corresponding to the observed ground-water declines. Cessation of monitoring is proposed for several of the springs and wells involved. If data that clearly support the drought hypothesis and correlate with flow or water-level declines are available, they should be in the MRP. If such data are not available, the hypothesized drought should not be used to justify cessation of monitoring.

R645-301-724.300, Fracturing of strata that are more brittle or less amenable to sealing by clays, such as the Castlegate Sandstone, and potential impacts of such fracturing on surface and ground water need to be discussed in the proposed amendment.

R645-301-725, -728, -729, The PHC in the currently approved MRP contains an estimate of ground water lost from the Quitchipah basin as moisture in the produced coal. This estimate of water removed from the permit area has been removed from the proposed amendment, but there is no apparent reason to remove it. If it is out-of-date or inaccurate it should be updated or corrected, but nevertheless the information should not be deleted from the MRP.

R645-301-731.210, There is no information or discussion that supports dropping the waste-rock-disposal-site wells from the ground water monitoring plan. The USFS has specifically requested that monitoring for boron and selenium be continued for ground-water samples from these wells. Boron and selenium are not listed in Table 7-4 of the proposed amendment. Monitoring should continue at the waste rock disposal site, and boron and selenium should remain on the list of monitoring parameters.

R645-301-722.100, -731.210, Water-level monitoring wells US-77-9, US-79-10, US-81-3, US-80-4, and US-79-13 are proposed for abandonment. However, examination of data presented in the MRP, the proposed amendment, and quarterly reports indicates these five wells are intact, currently monitored, and providing information that may be important to understanding the hydrology and hydro geology of the permit and adjacent areas. Water-level monitoring in these five wells should continue. Annual monitoring should suffice for US-79-13.

R645-301-121.200, The USFS commented that data from the monitoring wells seems too variable to support the statement "dewatering effects seen in the lower Blackhawk have a limited temporal duration" that is found in the last paragraph on page 51 of Appendix 7. A similar statement is made in Conclusion 11 on page 53. The USFS recommends that these conclusions be refined to more accurately acknowledge the observed variability of the data.

R645-301-121.200, What is to be monitored at monitoring site 047A is unclear. Site 047A is identified as a spring in Table 7-2 and Table A-1 of Appendix 7-17 but shown as a surface-water monitoring site on Plate 7-3. It is listed as a surface-water monitoring site in the current MRP. It needs to be clarified whether 047A

is a surface water or spring monitoring site.

R645-301-731, -731.211, Spring 57A is the only spring that has been monitored in the Duncan Draw - Mud Spring Hollow area, which has been an area of concern to water users in the past due to loss of flow from several springs, including 57A. Quarterly measurement of flow at 57A should continue.

R645-301-121.200, -731, UPDES 003 should be shown on Plate 7-3.

R645-301-121.200, -722.300, -731 The distinction between "historic monitoring well" and "well monitoring site" on Plate 7-3 isn't clear and doesn't correlate with the wells indicated for monitoring in Table 7-2. The meaning of the two different symbols should be clarified.

R645-301-121.200, -722.300, All baseline monitoring sites should be shown on Plate 7-3.

R645-301-121.200, -731, Operational stream monitoring sites 041 and 042 and springs GW-13 and GW-20 should be on Plate 7-3.

R645-301-722.100, Names and locations of ponds, such as Rock, Hans, and Johnson Ponds, should be on Plate 7-3.

R645-301-731.215, The USFS has commented that Stipulation 15 of the USFS lease unconditionally requires removal of water monitoring equipment and that the phrase "where feasible" on page 7-48 in the proposed permit should be removed as it does not excuse the permittee from this lease obligation.

R645-301-731.210, There is no information or discussion that supports dropping the waste-rock-disposal-site wells from the ground water monitoring plan. The USFS has specifically requested that monitoring for boron and selenium be continued for ground-water samples from these wells. Boron and selenium are not listed in Table 7-4 of the proposed amendment. Monitoring should continue at the waste rock disposal site, and boron and selenium should remain on the list of monitoring parameters.

R645-301-722.100, -731.210, Water-level monitoring wells US-77-9, US-79-10, US-81-3, US-80-4, and US-79-13 are proposed for abandonment, with justification being that they are no longer usable because of casing failure or having been

destroyed by mining or because they are located in areas that were mined before 1991 and far from current or projected mining. However, examination of data presented in the MRP, the proposed amendment, and quarterly reports indicates these five wells are intact, currently monitored, and providing information that may be important to understanding the hydrology and hydro geology of the permit and adjacent areas. Water-level monitoring in these five wells should continue. US-79-13 should have at least annual monitoring.

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R645-301-722.100, Names and locations of ponds, such as Rock, Hans, and Johnson Ponds, should be on Plate 7-3.

UPDES vs. Storm Water Permit vs. SPCC Plan

I (P. Hess) have also reviewed the storm water permit for the site, as it relates to the UPDES permit and the SPCC plan. The only deficiency which I can see is the fact that the Inventory of Exposed Materials which is required within the SUFCO storm water permit by page

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13, paragraph (2) of the SUFCO UPDES permit #UT0022918 does not include the salt/sand mixture which is maintained at the mine site for rad maintenance during the winter months. The storage bin for the mixture contains a sloped bottom which contains any brine which is created by a precipitation event.

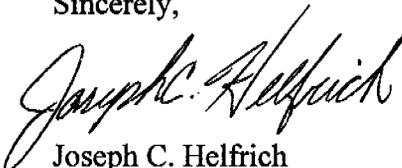
Any runoff which might escape would be routed through the sediment trap thence to the mine site sediment pond, UPDES #002A. This is a minor correction to Section 2.2.2 of the storm water permit which SUFCO may wish to make. Page 17, paragraph (10) of the SUFCO UPDES permit requires that the storm water permit address Salt Control Measures. I do not know if it is really necessary to address this, as it should be covered by the Inventory of Exposed Materials requirements.

ANALYSIS:

Although page 12, paragraph 4 of the UPDES permit does give the DOGM jurisdiction (through SMCRA) with regard to UPDES and storm water permits, the permits are issued by the Division of Water Quality. I think that all that is necessary is to make SUFCO aware of the aforementioned concerns and give them the opportunity to address them.

If you have any questions please call.

Sincerely,



Joseph C. Helfrich
Permit Supervisor

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Enclosure

cc: Ranvir Singh, OSM
Richard Manus, BLM
Janette S. Kaiser, Forest Service, Manti La-Sal
Rob Mrowka, Forest Service, Fishlake
Mark Page, Water Rights
Dave Ariotti, Health
Bill Bates, DWR

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