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File Act 1041/002

Subsidiary of #2  
Coastal States  
Energy Company



**Southern Utah  
Fuel Company**

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April 25, 1988

RECORDED  
APR 27 1988

DIVISION OF  
OIL, GAS & MINING

Mr. Lowell Braxton  
Division of Oil, Gas & Mining  
355 West North Temple  
3 Triad Center, Suite 350  
Salt Lake City, UT 84180-1203

Dear Mr. Braxton:

The technical deficiencies pointed out in the Division's March 30, 1988 review of Southern Utah Fuel's Waste Rock Disposal Site have been addressed in the enclosed updates. The Response Summary to Technical Deficiency Review dated March 30, 1988 enclosed outlines the applicant's response to the Division's concerns. Enclosed is an insertion guide for updating the Waste Rock Disposal Site PAP along with 14 copies of the updated materials.

The public notice was first published in the Salina Sun on April 20, 1988. The affidavit of publication will be submitted after the notice has been published for four weeks. ✓

Should you have questions, contact myself or Wess Sorensen.

Sincerely,  
SOUTHERN UTAH FUEL COMPANY

Ken M. Payne  
V. P. & General Manager

WKS:cfc

Enclosure

RESPONSE SUMMARY TO TECHNICAL DEFICIENCY  
REVIEW DATED MARCH 30, 1988

Division's Concern:

UMC 817.21 - .25 Soil Resource Management - JSL:

In addition, the Mining Reclamation Plan (MRP) states that the topsoil stockpile near the sediment pond will be reseeded. Please indicate the rate and seed mix that will be used.

Applicant's Response:

Addressed in revision to Reclamation Plan - see Section 4.6.1, page 39.

Division's Concern:

UMC 817.43 Hydrologic Balance: Diversions and Conveyance of Overland Flow, Shallow Ground Water, and Ephemeral Streams - KW  
UMC 817.44 Hydrologic Balance: Stream Channel Diversions - KW

Deficiencies requiring responses:

1. The reclamation plan needs to address the removal of the culvert extension on Watershed #1. This culvert needs to be removed and the runoff restored to its original channel. Since this channel will not be disturbed during the operation of the waste rock area, no designs of the reclaimed channel will be required.
2. Diversion #2 below the splash basin must be redesigned to pass expected peak flow from Watershed 2 and the road drainage from a 100yr - 24hr precipitation event.
3. The applicant needs designs for riprapping the section of Diversion #3 where it moves off the road bank down to the splash basin at the top of Diversion #2. Division calculations show riprap with a  $D_{50}$  of 0.5 ft and 1 foot of filter blanket material (1 in minus road base) should be sufficient.

Applicant's Response:

Item number 1 is no longer applicable. Design was changed as per March 29, 1988 completeness response. See Section 2.4.1, page 17.

Item number 2 is addressed in the revised undisturbed area Engineering Calculation. See Appendix III, pages 8-11.

Item number 3 is addressed in the revised undisturbed area Engineering Calculations. See Appendix III, pages 6-7.

Division's Concern:

UMC 817.46 Hydrologic Balance: Sedimentation Ponds - KW

Deficiencies requiring responses:

1. The elevations shown in Figure 1 need to be corrected to show a minimum of 1 ft between the primary and the emergency spillway.

Applicant's Response:

The sediment pond elevations have been corrected in Sediment Pond Engineering Calculations, Appendix III, pages 4-6, 7a, 7b, and page 9.

Division's Concern:

UMC 817.48. 817.71(1)(2) and 817.103 Acid-or Toxic-Forming Material - JSL

Based on the limited data presented in the January 19, 1988 submittal, the Division considers the waste material to be acid- or toxic-forming. This determination is based on the water-extractable boron level of 6.13 ppm. According to the Division's Guidelines for Management of Topsoil and Overburden for Underground and Surface Coal Mining, any material with water-extractable boron greater than 5 ppm is classified as an acid- or toxic-forming material.

This determination is based on the one and only sample. The Division recommends further analysis of the material presently stockpiled and for each lift that is derived from an isolated (specific) area of the mine to fully characterize the waste.

Applicant's Response:

Several additional waste material samples have been taken and are currently undergoing laboratory analysis. The data from these samples will be submitted to the Division upon receipt.

Division's Concern:

UMC 817.52 Hydrologic Balance: Surface and Groundwater Monitoring - KW

Deficiencies requiring responses:

1. The applicant needs to add static water level to the parameters that will be monitored in the field.
2. The MRP needs a commitment to submit the results of the monitoring within ninety (90) days of the end of each quarter.
3. The two monitoring wells drilled in February need to be located on Map 2.

Applicant's Response:

A commitment to monitor static water levels and to submit the monitoring data as requested has been included in revised Section 4.7.2, page 45. The monitoring well locations were included on the Map 2 revision submitted March 29, 1988.

Division's Concern:

UMC 817.101 Backfilling and Grading: General Requirements - KW

The cross-section labeled "G" in Figure 2 appears to correspond to cross-section F on Map 2. This discrepancy should be rectified.

Applicant's Response:

The Division's concern is covered by previously submitted documentation. Cross-section "F-F'" shown on Map 2 is contained in Appendix III Engineering Calculations, Slope Stability Section. The location of cross-section "G-G'" is shown on Map 4.

Division's Concern:

UMC 817.111 Revegetation: General Requirements - LK

Section 4.6.1 (page 39) of the plan indicates seeding will be done using broadcast seeding methods (cyclone spreader). However, Table 4.6.1-1 states that seed application will be by drilling. This discrepancy needs to be corrected. Please note, the seeding rate listed on Table 4.6.1-1 is acceptable for drill seeding, but would need to be increased if broadcast seeding is used (please refer to UMC 784.13(b)(5)(iii)).

Applicant's Response

The noted discrepancy has been corrected in revised Section 4.6.1, page 39.

Division's Concern:

UMC 817.113 Revegetation: Timing - LK

The application does not identify a timetable as to when each major step in reclamation will be completed (i.e., grading, topsoiling, fertilizing, seeding, mulching, etc.) (Please refer to UMC 784.13(b)(1) and UMC 784.13(b)(5)(i)).

Applicant's Response:

The timetable has been revised, see Section 4.2, to include the requested information.

Division's Concern:

UMC 817.114 Revegetation: Mulching and Other Soil Stabilizing -  
Practices - LK

Regardless of the slope, wet (wood) fiber mulch needs to be anchored with a chemical tackifier. The plan needs to identify this, as well as the rate of application. Usually on level areas, a minimum of 50 lbs. of tackifier per 2,000 lbs of mulch is applied (Please refer to UMC 784.13(b)(5)(iv)).

Applicant's Response:

The proposed methods for soil stabilization have been included in revised Section 4.6.2, page 39.