



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

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March 24, 1997

Mike Watson, President
U. S. Fuel Co.
340 Hardscrabble Road
Helper, UT 84101

Re: Sediment and Drainage Control, Hiawatha Complex, U. S. Fuel Company,
ACT/007/011-97B, File #2, Carbon County, Utah

Dear Mr. Watson:

Steve Johnson, Hydrologist for our staff has reviewed and provided me with his Technical Analysis of the referenced proposal. There are a few deficiencies so noted in Mr. Johnson's memo. Could you address these by April 14, 1997? A previously faxed copy has been provided for consultation with Mr. Johnson. Please feel free to call Steve or myself if you have any questions.

Sincerely,

Joseph C. Helfrich
Permit Supervisor

jch
Enclosure

cc: Steve Johnson
Susan White

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March 25, 1997

TO: File #2

THRU: Joe Helfrich, Permit Supervisor *JGH*

FROM: Steven M. Johnson, Reclamation Specialist *SMJ*

RE: Sedimentation and Drainage Control, Hiawatha Complex, U.S. Fuel Company, ACT/007/011-97B, File #2, Carbon, County, Utah

SUMMARY:

U.S. Fuel has submitted an appendix to amend the Hiawatha Mining and Reclamation Plan (MRP). This appendix provides hydrologic designs and calculations for the facilities east of the railroad tracks. This amendment may complete parts of Division Order 97A.

TECHNICAL ANALYSIS:

OPERATION PLAN

OPERATIONAL HYDROLOGY

Regulatory Reference: R645-301-742.

Sediment Control

Analysis:

Appendix VII-20 includes designs and calculations for sediment control measures on the east side of the railroad tracks. This includes designs for sediment ponds 005, 006, 007 and 5A (Slurry Pond 5A). These designs are evaluated beginning on page 12.

Table 15 shows the summary of designs for Slurry Pond 5A. This pond has a total volume 89.55 acre-feet which is much larger than the MSHA pond criteria. However, the Slurry Pond 5/5A unit has always been subject to the MSHA rules, thus there is no change in frequency or type of inspections that will be necessary. The actual volume needed to treat runoff in Pond 5A is 18.67 acre-feet; much less than the total capacity.

U.S. Fuel has listed several time in tables and text areas classified as Small Area Exemptions (SAE). This is an incorrect designation for the types of areas listed. These area should be designated as Alternate Sediment Control Areas (ASCA) according to the regulations as clarified in Directive Tech-003A.

Findings:

The operational sediment control plan for the areas described in Appendix VII-20 is complete and accurate except for the following deficiency.

R645-301-742.240, U.S. Fuel must designate areas currently called SAE as ASCA or demonstrate that runoff from these areas is not exceeding applicable water quality standards.

Diversions

Analysis:

Several diversions are address and have designs included in Appendix VII-20. Tables 6 and 7 show summaries for diversions and culverts, respectively, located east of the railroad tracks. These same diversions are designed and summarized in the recently approved Appendix VII-19, however, the designs vary greatly. U.S. Fuel must choose the most appropriate design for these diversions and eliminate contradiction. Both appendices use proper, yet different, design methodologies.

Findings:

The operational diversion designs for areas east of the railroad tracks are contradictory with another portion of the MRP, therefore the following deficiency exists.

R645-301-742.300, U.S. Fuel must choose the most appropriate design for these diversions and eliminate contradiction between designs for ditches shown in both Appendix VII-19 and VII-20.

RECLAMATION PLAN

RECLAMATION HYDROLOGY

Regulatory Reference: R645-301-742.

Sediment Control

Analysis:

Section 4, beginning on page 19 of Appendix VII-20, and Tables 16 through 20 address reclamation runoff control for areas east of the railroad tracks. Predominantly, this section discusses the reclamation of Slurry Pond 5A, which is acting as a sediment pond during operations. U.S. Fuel has not included a map to show how drainage patterns will be established.

Findings:

U.S. Fuel has not adequately addressed reclamation drainage control for these areas. In light of Division Order 97A, these areas will be re-mapped and the entire reclamation plan will be redesigned.

R645-301-763, U.S. Fuel must submit final drainage control designs after the mapping project is complete.

RECOMMENDATION:

U.S. Fuel has not accurately addressed drainage control in the area east of the railroad tracks. Information in Appendix VII-20 is contradictory with other parts of the MRP, sediment control measures are mis-classified, and reclamation plans are incomplete. U.S. Fuel must resubmit this information to standards prescribed by the regulations and DO97A. Preferably, U.S. Fuel should complete the operations information immediately and finish the reclamation designs after the entire site reclamation plan is complete.



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March 17, 1997

*Bob -
 Slurry fert.
 Rates*

TO: Folder #2

THRU: Daron Haddock, Permit Supervisor *DH*

FROM: Robert Davidson, Soils Reclamation Specialist *RAD*

RE: Fertilizer recommendation for Slurry Pond #5, Hiawatha Mine, United States Fuel Company, ACT/007/011, Folder #2, Carbon County, Utah

The following soil analyses results for pond #5 were obtained on 3/17/97 by facsimile from Mike Watson to Robert Davidson. Mike Watson requested fertilizer recommendations based on soil sampling results.

	Borrow area soil surface samples ppm	Recommendation lbs/Acre
Phosphorus	5.9 and 4.9	35 to 55 P ₂ O ₅
Potassium	71 and 63	90 to 140 K ₂ O
Nitrate-Nitrogen	<1.0 and 1.4	20 N

Fertilizer recommendations are based on the above data for dryland grain. Listed below are two options for obtaining the needed fertilization rates:

- 250 lbs/acre of 16-16-8 will provide 40 lbs/acre each for N and P₂O₅, and 20 lbs/acre of K₂O. An additional 150 lbs/acre of 0-0-60 will provide 90 lbs/acre of K₂O for a total of 110 lbs/acre.
- 333 lbs/acre for the following blend based on a 3000 pound mix: 550 pounds of 21-0-0, 600 pounds of 11-52-0 and 1850 pounds of 0-0-60. This mix would provide 20 lbs/acre N, 35 lbs/acre P₂O₅ and 123 lbs/acre K₂O.

cc: Paul Baker
 Susan White
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