



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

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January 7, 1994

Mr. Michael Baum, President
U. S. Fuel Company
P. O. Box 887
Price, Utah 84501

Re: Deficiencies in Renewal Response, U. S. Fuel Company, Hiawatha Mine,
ACT/007/011, Folder #3, Carbon County, Utah

Dear Mr. Baum:

The Division has completed a review of your plans submitted on June 9, 1993 in response to deficiencies identified in your renewal application. At this time your plans are still considered deficient and cannot be approved. The problems center mainly around the haul roads which are planned to be left in place for the post mining land use. Additional justification will need to be made in this area before your plans can be fully approved. The enclosed technical review document discusses the deficiencies. Please review it and provide a response by no later than February 7, 1994 which addresses the concerns.

If you have any questions, please call me.

Sincerely,

A handwritten signature in cursive script that reads "Daron R. Haddock".

Daron R. Haddock
Permit Supervisor

Enclosure

cc: P. Baker
S. Johnson
W. Western

RENERSP.HIA



**TECHNICAL REVIEW
RENEWAL RESPONSE DATED JUNE 9, 1993
U.S. FUEL COMPANY
HIAWATHA MINES COMPLEX
ACT/007/011
JANUARY 7, 1994**

R645-301-412

Land Use Reclamation Plan

(PBB)

Original Deficiency:

Retention of the roads in South, Middle, and North Forks needs to be justified. For the Division to approve road retention, the roads need to be shown to be an integral part of the approved postmining land use or a higher and better use. The plan must also address protection of wildlife and wildlife habitat.

Analysis:

The plan proposes that the roads would be reclaimed to an unimproved condition by removing the pavement and ripping and seeding them. The plan gives justification based on the wildlife, grazing, and recreation postmining land uses and also discusses the requirements of R645-302-270 for a variance from approximate original contour (AOC) requirements.

As discussed in the April 26, 1993, memorandum, the primary concern of Wildlife Resources (DWR) for wildlife habitat is the degree of accessibility and use of the roads during crucial periods, particularly the winter. Reclaiming the roads to an unimproved condition will provide limited additional forage compared to the present condition but will restrict access during crucial periods.

The plan states that the canyon roads are an asset to modern ranching operations and contribute to the value of the land for that purpose. Roads provide access for cattle being trucked to and from lowland winter ranges. They also provide access to gates and fences that must be maintained and allow easier inspection of the location and condition of livestock.

The areas around Hiawatha are scenic and diverse and important to many visitors from local, state, county, and out-of-state areas. Access to historic and scenic areas provide recreation to these people.

The plan contains a request for a variance from AOC requirements in Appendix IV-7. This request states that consultation has been performed with appropriate governmental agencies. The intended use is not impractical or unreasonable and does not pose any actual or probable hazard to public health or safety or threat of water diminution or pollution. Watersheds will be improved compared to reclaiming

to AOC because of the terrace effect that the roads would have compared to the steep slope which would be created if AOC was restored.

The justifications now contained in the plan appear to be adequate to satisfy the requirements of the regulations for retention of the roads in an unimproved condition.

The previous memorandum dealing with the roads stated that retention needed to be justified by the requirements of R645-302-270 for a variance from approximate original contour. Further examination of the regulations shows that road cut and fill slopes do not necessarily constitute a variance from approximate original contour. R645-301-553.400 and 420 state that cut-and-fill terraces may be allowed by the Division where specialized grading, foundation conditions, or roads are required for the approved postmining land use, in which case the final grading may include a terrace of adequate width to ensure the safety, stability, and erosion control necessary to implement the postmining land-use plan. Therefore, contrary to the April 26, 1993, memorandum, a variance may not be needed if U. S. Fuel can demonstrate that approximate original contour is being achieved while leaving the roads. If U. S. Fuel can make this demonstration, Appendix IV-7 that discuss a variance from approximate original contour should be eliminated. However, some of the discussion in this appendix that mentions the advantages of leaving the road cuts for sediment control and stability should probably be included elsewhere in the plan. If there is no variance from approximate original contour, some other changes to the plan would need to be made. Page 68 of Chapter V says under 553.400 that no cut and fill terraces are proposed. This would need to be changed to either reference Chapter II pages 81-82 or to mention that cut and fill terraces are to be left as part of road retention.

Although R645-301-553.400 allows retention of road cut and fill slopes, it also states that the terrace for the road may be of adequate width to ensure the safety, stability, and erosion control necessary to implement the postmining land use. The existing roads are two lane paved haul roads, but the reclamation plan states that they will be unimproved roads. To achieve the postmining land use, the cut and fill terraces do not need to be as wide as they currently are. U. S. Fuel needs to commit to reclaim the roads to the width needed for the postmining land use.

The current plan is to rip then seed the road surfaces. This could lead to rill and gully formation. Runoff control is discussed in a memorandum from Steve Johnson.

Remaining Deficiencies:

1. U. S. Fuel should attempt to demonstrate that the roads are being restored to approximate original contour on the basis of R645-301-553.400. If this demonstration can be made, Appendix IV-7, which requests a variance from approximate original contour and gives justification for it, should be removed. Some of the text of this appendix should probably be included elsewhere in the plan, however. The statements in Chapter II that reference the request for a variance from approximate original contour would need to be eliminated. If a demonstration of achieving approximate original contour cannot be made, the Division would need to determine that granting a variance from approximate original contour for steep slope mining areas is possible.
2. If U. S. Fuel can demonstrate that the road areas are being returned to approximate original contour, the statement on page 68 of Chapter V that no terraces are proposed should be changed to reference Chapter II or to mention that cut and fill terraces will be left as part of road retention.
3. U. S. Fuel needs to commit to reclaim the roads to the width needed for the postmining land use.

R645-301-412

Land Use Reclamation Plan

(SMJ)

Proposal:

Canyon roads are to be reclaimed to an unimproved condition by removing and disposing of pavement. Existing drainage structures will be left in place to serve a single lane road.

Analysis:

U. S. Fuel proposes to remove and dispose of pavement from the canyon roads in reclaiming these roads to an unimproved condition. No disposal site is given for the pavement. It is assumed that U. S. Fuel plans to remove all road gravel prior to ripping and seeding the surface. Leaving the soil bare would increase the

potential for erosion (i.e. the formation of rills and gullies). The gravel base could be left in place to decrease the erosion potential.

The existing drainage system is proposed to be left in place. U. S. Fuel has not investigated any other options for drainage; however, there are other practices available that could be considered that would decrease the need for maintenance and would still provide the proper drainage.

Deficiencies:

1. U. S. Fuel should supply information about disposal of the pavement. If intended disposal is on-site then plans for burial should be submitted. If U. S. Fuel intends to dispose of the pavement off-site a State-approved solid waste disposal site should be selected, and the Division should be notified of this selection in accordance with R645-301-528.332.
2. U. S. Fuel should justify the need for leaving the existing drainage structures in accordance with R645-301-542.620.

R645-301-537.200

For the purpose of UNDERGROUND COAL MINING AND RECLAMATION ACTIVITIES, regrading of settled and revegetated fill to achieve approximate original contour at the conclusion of mining operation will not be required if the following conditions are met (WHW)

Proposal:

As provided by this rule, U.S. Fuel is proposing to not restore the canyon access roads to approximate original contour. Justification is given in rules 537.210 through 537.250 below and in R645-302.270 addressed in Appendix IV-7 of Chapter IV.

Analysis:

Only parts of the access road do not meet approximate original contour (AOC) requirements. The Applicant must identify each area that currently does not meet AOC requirements and why a variance should be granted. Once the areas have been identified and the request for the variance has been made then the Division can evaluate the request.

The Applicant has not demonstrated to the Division that all of the requirements of section R645-301-537.200 to R645-301-537.250 have been met. There was no information supplied to the Division that demonstrated through standard geotechnical analysis that a safety factor of the areas is 1.3 or greater or that the vegetation has met the reclamation standards.

If the Applicant fails to obtain an AOC variance then the roads must be reclaimed to AOC standards.

Deficiencies:

1. The Applicant needs to describe the location of all stabilized and revegetated fills, for which a variance from AOC requirements is sought, on a map that has a scale of 1 inch equals 50 feet or less.
2. The Applicant must demonstrate that all of the requirements of section R645-301-537.200 to R645-301-537.250 have been met. Specifically the Applicant must demonstrate that the vegetation requirement have been achieved and that the slopes have a safety factor of at least 1.3.

R645-301-537.230

(WHW)

Proposal:

The stability of the existing road grades and outslopes has been demonstrated to be consistent with backfilling and grading requirements as evidenced by 20 to 45 years of continual use without any signs of instability.

Analysis:

R645-301-537.230 states that the stability of the spoil or underground development waste will be demonstrated through standard geotechnical analysis to be consistent with backfilling and grading requirements for materials on solid bench (1.3 static safety factor) or excess spoil requirements for material not placed on a solid bench (1.5 static safety factor). The regulation requires that a geotechnical analysis be performed and that slope have a minimum safety factor. The Applicant has not provided the Division with such an analysis. Many slopes have safety factors less than 1.3, but do not show signs of instability.

Deficiencies:

1. The Applicant will provide the Division with a geotechnical analysis that demonstrates that materials placed on a solid bench have static safety factor of 1.3, or if the materials are not placed on a solid bench they must have a static safety factor of 1.5.

R645-301-537.240

(WHW)

Proposal:

The reclaimed surface of the roads will be vegetated according to R645-301-356 and 357 (see Chapter III). Surface runoff will be controlled by existing structures to be left in place.

Analysis:

The Applicant has not demonstrated in this section that the vegetation has met the requirements of R645-301-356 and 357. A report by a qualified biologist must be included in the mine plan that demonstrates that the vegetation meets or exceeds the reclamation standards.

The Applicant must show that the surface runoff will be controlled in accordance with R645-301-742.300.

Deficiencies:

1. The Applicant must demonstrate that the vegetation requirements of R645-301-356 and 357 have been met.
2. The Applicant must demonstrate that surface runoff will be controlled in accordance with R645-301-742.300. If Applicant is unable to meet the requirement of R645-301-356 and 357 then the slope must meet AOC standards.