



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

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September 3, 1997

TO: File
THRU: Daron Haddock, Permit Supervisor
FROM: Paul Baker, Reclamation Biologist
RE: Reclamation Plan Review, U. S. Fuel Company, Hiawatha Mine, ACT/007/011, Folder #2, Carbon County, Utah

DOA
RB

SUMMARY:

In accordance with Division Order 97A, U. S. Fuel Company has proposed changes to its mining and reclamation plan. U. S. Fuel has modified its revegetation plan and included a plan to remediate damage to areas affected by coal fines. It has proposed to change some of the reference areas, but information about the range conditions of these areas needs to be included in the plan. The plan for interim revegetation is not adequate and needs to be modified.

TECHNICAL ANALYSIS:

OPERATION PLAN

INTERIM STABILIZATION

Regulatory Reference: R645-301-331

Paul's response to DO 97A

Analysis:

Chapter 3 of the plan discusses interim revegetation plans for certain types of areas. A mix of intermediate wheatgrass and alfalfa would be used for long-term interim revegetation, and a winter grain, such as barley, would be used for short-term revegetation. This plan is adequate except that the planting rate specified for the winter grain is very low. The "Interagency Forage and Conservation Planting Guide for Utah" recommends planting grains at the rate of 80 pounds per acre for temporary revegetation. The interim revegetation plan needs

to be changed to show a higher seeding rate for grains.

Findings:

The mining and reclamation plan does not meet the requirements of this section of the regulations. The permittee needs to make the following changes:

R645-301-331, The response to the Division Order says U. S. Fuel will plant 20 pounds per acre of annual grain for temporary stabilization. This rate needs to be increased to at least 80 pounds per acre.

RECLAMATION PLAN

REVEGETATION

Regulatory Reference: R645-301-341

Analysis:

The revegetation methods in the plan have been previously reviewed. The permittee may want to make some adjustments to the seed mixes depending on the results of 1996 revegetation efforts.

A few areas near the refuse piles are within the disturbed area but are not disturbed in the sense that topsoil and vegetation have been removed. They have natural vegetation, but they have been heavily affected by wind-blown coal fines. The permittee has committed to mitigate this disturbance in two areas shown on Exhibit V-9C. In Chapter 5, Section R645-301-541 under the heading "Hiawatha Processing Plant and Waste Disposal Sites Reclamation," the permittee commits to vacuum or scrape the areas to remove fine coal particles then scarify and reseed them. While the plan does not specify which seed mixture would be used to seed the area, seed mix 2 is for use on refuse disposal areas and would be appropriate for these areas. Other aspects of this remediation plan are acceptable.

Other areas besides those shown on Exhibit V-9C have also been affected by coal fines, but, as far as the Division is aware, none of these either need to be or should be remediated. In some areas, there are very few fines. In other areas, although there may be quite a few fines, it appears there would be more damage than benefit from remediation.

To reduce compaction in the upper layers, refuse materials will be ripped about every five feet to a depth of 18-24 inches. In the past, the refuse has been ripped at much greater intervals.

Hydroseeding and broadcast seeding will be the preferred seeding methods, but drill seeding could also be used. If drill seeding is used, the Division will be contacted to determine if additional measures are needed during planting since some species require a shallow seeding depth.

With the Division and the Natural Resources Conservation Service (NRCS), the permittee has examined some of the existing reference areas and proposed different areas to be used as revegetation success standards. These reference areas and the areas to which they will be compared on shown on Table III-9.

It was impossible to locate reference area SBR3, so a new reference area was marked in the field and evaluated by the NRCS. While this area is dominated by basin big sage, it does have grass and forb understory, and the NRCS rated the range condition as "good."

The other new reference area is a riparian area in South Fork. The site condition was rated as "fair" which is adequate for using it as a revegetation success standard. This area will be used for comparison to areas near reclaimed stream channels at the King 4, 5, and 6 Mines.

Other reference areas had been previously established but were evaluated by the NRCS representative. SBR12 was in "fair" condition," and MBR1 and PJR4 were both in "good" condition. The only area not rated was the mixed conifer reference area in Middle Fork which still had snow on it at the time of the evaluation.

The reference areas all have vegetation typical of the area although portions of SBR3 have been previously disturbed. Since all of the reference areas are in fair or better condition, they are considered acceptable success standards. Reference area PJR5 has been deleted.

U. S. Fuel either did not propose to include the letter from the NRCS in the plan or did not give instructions on how this letter should be inserted. The letter needs to be included in the mining and reclamation plan.

Findings:

Information provided in the proposed amendment is not considered adequate to

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meet the requirements of this section of the regulations. Prior to approval, the permittee must provide the following in accordance with:

R645-301-341, The permittee needs to provide information in the plan about the range conditions of the reference areas which would be used for judging revegetation success. The Division has a copy of a letter from the Natural Resources Conservation Service showing this information, and this letter could be included in the plan to fulfill this requirement.

RECOMMENDATIONS:

U. S. Fuel has fulfilled most of the requirements of the biology portions of Division Order 97A, but some changes need to be made. These changes should not be approved until the corrections are made.