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United States
Department of
Agriculture

Forest
Service

Manti-La Sal
National Forest

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Price, Utah 84501
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Don → memo file 015/032#2

*CC: J. Smith
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RECEIVED

Reply to: 2820

APR 22 1993

Date: April 20, 1993

DIVISION OF
OIL GAS & MINING

Mr. Lowell Braxton
State of Utah Natural Resources
Division of Oil, Gas and Mining
355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203

RE: Amendment to Mine Plan, Blind Canyon Subsidence, Genwal Coal Company,
Crandall Canyon Mine, ACT/015/032-93B, Folder #2, Emery County, Utah

Dear Lowell:

We reviewed the proposed amendment and object to approval as proposed due to potential impacts to National Forest System lands. Specific concerns and comments are as follows:

1. Page 7-43

It is stated on this page that UDOGM, Utah State Lands, the Manti-La Sal National Forest, Forest Service Research Station, BLM, and Genwal Coal Co. have committed to a study by which the area beneath the unnamed drainage in Blind Canyon will be retreat mined as part of a scientific study to determine the effects of retreat-mining produced subsidence on watershed erosion.

This statement is not entirely correct. The Manti-La Sal National Forest stated that we would not consent to unmitigated impacts to the drainage in Blind Canyon within National Forest System lands. Furthermore, we agreed not to object to retreat-mining under the drainage on the State lease as long as all of the following conditions could be met:

- (a) Modeling of the pre- and post-mining conditions in the stream profile and related watershed is completed to determine the extent of expected erosion and increase in sediment production.
- (b) The operator and State propose mitigations to be completed before mining that would decrease sediment load by an equal or greater amount than was predicted in item a above.
- (c) All parties would agree to conducting a study to monitor the actual effects of mining as proposed on the State lease.
- (d) The operator and State would commit to implementing measures that would be effective in mitigating impacts to the drainage within National Forest System lands as mutually agreed to by the Manti-La Sal National Forest.

2. Page 7-112, References

The word "User's" is misspelled in the reference to Kelly, G.D., 1967, User's Guide for the Computer Program SEDROUTE.

3. Appendix 7-24, 1.0 Introduction, First Paragraph

This paragraph references the study. This paragraph needs to be revised in accordance with the comments in item 1 above.

The third sentence in this paragraph needs to be revised to make it clear that the retreat-mining proposed would lie beneath the drainage on a State lease (State surface and minerals) within the boundaries of the Manti-La Sal National Forest.

4. Appendix 7-24, 2.3 Discussion, Last Paragraph

This paragraph states that the calculations reveal an increase in annual sediment well within the error of the parameters entered into the erosion calculations.

We agree that the value is within the expected error of the calculations. However, the purpose of the modeling was to determine a relative change in pre- and post-mining conditions and the calculations accomplished this objective. Because this was the method agreed to and used, we assume that this relative increase in sediment would occur and that the calculated sediment yield must be offset by proposed mitigations to be completed before mining.

5. Appendix 7-24, Overall Comments

(a) The calculated increase in annual sediment yield of 0.606 acre-feet may not be correct due to a potential error in the calculations shown in Appendix 7-36. The percent slope, pollution hazard index and delivery coefficient should have been divided by 100 for the calculations.

(b) No information on the stream profile, changes in the profile due to subsidence, and expected change in sediment yield from adjustment of the stream dynamics is presented. The final expected sediment yield increases due to subsidence and the amount of offset mitigation to be completed to prevent downstream impacts must consider this information. Since we are dealing with predictions rather than empirical data, a reasonable worst case scenario should be considered.

6. Appendix 7-25, Subsidence Modeling Subsidence Study

Several methods and assumptions were used to predict the amount of expected subsidence. The subsidence used in the sediment yield calculations was a maximum of 40 inches along the upstream section. Some of the other models predicted subsidence greater than or less than the 40 inches but this model was adopted due to the assumptions listed in the conclusion of the TerraTek report. A comparison of the predicted subsidence with subsidence measured above similar mined areas in the Crandall Canyon Mine permit area is needed to substantiate these numbers.

Based on our review, we feel that the overall sediment yield calculations need to be revised and supplemented as described above and that mitigations need to be proposed and implemented prior to any actual increase in sediment yield in the drainages within National Forest System lands.

If you have any questions, contact Carter Reed or Walt Nowak at the Forest Supervisor's Office in Price, Utah.

Sincerely,

Warren R Jensen

for
GEORGE A. MORRIS
Forest Supervisor

cc:

Jay Marshall, Genwal Coal Co.
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