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mine file  
R. Smith *RB*

United States  
Department of  
Agriculture

Forest  
Service

Manti-LaSal  
National Forest

599 West Price River Dr.  
Price, Utah 84501

RECEIVED  
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Reply to: 2820

Date: April 28, 1989

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

DIVISION OF  
OIL, GAS & MINING

RE: Updated Text and Maps, Five-Year Permit Renewal, Utah Power and Light Company, Cottonwood/Wilberg Mine, ACT/015/019, Folder#2, Emery County, Utah

Dear Lowell:

We have reviewed the Mining and Reclamation Plan, UDOGM's April 5, 1989, Initial Completeness Review/Preliminary Technical Deficiency comments and the updated text which you sent to our office for review. We have the following comments:

1. Page 1-11 and 1-12 (3/1/89 Update) (Editorial Only)

The address of the Manti-LaSal National Forest is outdated. The present address is: 599 West Price River Drive, Price, Utah 84501.

2. Vegetation Information for the Wilberg Mine, Page 2-101

Each vegetation type mapped and monitored for the permit area, in conjunction with subsidence and hydrologic monitoring, should be based on a dominant overstory and a dominant understory species to be consistent with Uinta-Southwestern Utah Coal Region Data Adequacy Standards for coal leasing.

3. Land-Use Information, Page 2-177

The MRP should specifically reference and be consistent with the Manti-LaSal National Forest Land and Resource Management Plan, 1986. The narrative should discuss dispersed recreation which consists mostly of hunting with some sightseeing and camping. Map 2-19 is not consistent with the narrative since it does not depict wildlife habitat and is not consistent with the Post-Mining Land Use information presented in Chapter 4 since wildlife habitat is not indicated in the portal area.

The discussion addresses potential and development of oil and gas in and adjacent to the East Mountain Permit Area. The discussion states that oil and gas development is some distance from the permit area and is of no consequence to UP&L's coal mining operations. Meridian Oil Co., operator of the East Mountain Unit, has developed six gas-producing wells in Cottonwood Canyon just west of the permit area. An additional well will be drilled in 1989 on East Mountain just northwest of the permit area. The East Mountain Unit overlaps with UP&L's permit area, therefore, future development of the East Mountain Unit by Meridian Oil Co. could take place within UP&L's permit area.

4. Surface Waters (783.16), East Mountain Springs, Page 2-91,2-92

Flag Lake Spring (79-28) must be added to the list of springs to be monitored since it lies within the 5-year permit area. This was one of the springs identified as having high resource value by the Forest Service and was identified for monitoring in the meetings held by UP&L, UDOGM and the Forest Service referenced in this MRP discussion.

5. Mining Plan (784.11), Coal Recovery, Page 3-10

In paragraph 4 of this page it is stated that UP&L Co. intends to maximize the amount of coal recovery subject only to feasible economic constraints, coal quality and mine safety considerations. In some instances, it may be necessary to shorten panels and leave some coal reserves in place to control and prevent subsidence induced impacts, such as in escarpment areas, in conformance with lease stipulations. As a result of permitting, negotiations and an appeal, the BLM, FS, UP&L Co. and UDOGM are cooperating in a study to determine how effective mitigation measures can be, and to develop a model for prediction of mining induced escarpment failures. A sentence in the original MRP, Page 3-15 (11/21/83) stating that special terms and conditions of the coal leases will be complied with was removed. There should be additional discussion in this section to address this concern.

6. Mining Plan (784.11), Newberry Canyon Intake, Page 3-18  
UDOGM Comment UMC 817.12-.15

It is stated here that a two-entry intake breakout in the Blind Canyon Seam is scheduled in 1984. This statement has to be an error since it is presently 1989 and mining in the Blind Canyon and Cottonwood Seams in the Newberry Canyon area will not take place due to coal quality concerns. This statement must be corrected. If a breakout is in fact planned for the future, it will be necessary for this facility to be properly proposed and permitted. An environmental assessment prepared by the Forest Service will be required with adequate lead time for permitting.

7. Chapter 3, Operation Plan

The proposed Channel Canyon Intakes (Page 3-6, 2/17/89 Rev.), the proposed Newberry Canyon Intake (Page 3-18, 3/1/89 Rev.), and the Cottonwood Fan Portal (Page 3-20, 11/21/83 Rev.) are discussed in this section. There is, however, no discussion on the Miller Canyon Breakout anywhere in this section. This is a facility and needs to be described in this chapter.

8. Chapter 3, Operation Plan, Channel Canyon Breakout, Page 3-7

The plan states that there will be no water discharge from the proposed Channel Canyon Breakout because the Hiawatha Seam dips 2% to the northwest and water produced in the area will drain down-dip into the mine. Since this is a low area in the mine, water will eventually pool and need to be discharged as was the case with the Miller Canyon Breakout. UDOGM needs to review this statement for accuracy.

The same statement was originally made when the Miller Canyon Breakout was proposed. Water is now pooled just inside of the breakout and discharge is necessary requiring UP&L Co. to have obtained an NPDES permit. UP&L Co. now states on page 4-36.4 that the Miller Canyon Breakout will have the greatest post-mining discharge because it is a low area in the mine due to the northwest dip. Degradation of water quality in Cottonwood Creek is a concern since it is used as a water supply for Orangeville and Castle Dale.

9. Chapter 4, Revegetation (UMC 817.11-.177), Interim Vegetation Establishment, Page 4-12 (3/1/89 Rev.)  
UDOGM Comment UMC 817.112

The seed mix contains several species which are undesirable and are not consistent with Forest Service management of the area. In addition, the success of some of the listed species is doubtful. Attached is a revised seed mix suggested by the Manti-LaSal National Forest. If UDOGM does not agree with this revised seed mix, please contact Bob Thombson, Forest Supervisory Range Conservationist at the Forest Supervisor's Office in Price, Utah, to work out a mutually acceptable list. Bob can help provide justification for use of introduced species based on results of Forest Service plantings and management objectives for the disturbed lands (UDOGM Comment - UMC 817.112). For interim success, at least 60% ground cover is needed for effective erosion control.

Page 4-13 (3/1/89 Rev.) - This section states that revegetation success is based on establishment of a reproducing plant cover on the majority of the slope. The success standard must be described in terms of plant cover as required under UMC 817.116.

10. Chapter 4, Revegetation (UMC 817.11-.177), Interim Vegetation Establishment, Seeding, Page 4-14, (3/1/89 Rev.)  
UDOGM Comment 784.13(b)(5)(i)

Item 7 states that seeding will be completed in the late fall to take advantage of winter moisture. We agree with this statement, however, it is equally important that the seed be applied immediately upon seedbed preparation regardless of what time of year.

11. Chapter 4, Revegetation (UMC 817.11-.177), Interim Vegetation Establishment, Maintenance and Monitoring, Page 4-15 (3/1/89 Rev.)

An item needs to be added which states that all noxious weeds will be eradicated if they become established on the site. For non-noxious weeds, the statement in this section regarding weeds is adequate. The same statement needs to be added on page 4-20 which discusses maintenance and monitoring of the final revegetation plan.

12. Chapter 4, Reclamation Plan (UMC 784.13), Portal Sealing

The paragraph in this section states that all portal entries are updip on the extracted seam and require no drains or special hydrological containment seals, except the Cottonwood Fan Portal drainage. On page 4-36.4, it is stated that the Miller Canyon Breakout will have the greatest post-mining discharge since it is a low area in the mine due to the northwest dip of the Hiawatha Seam. Drains and hydrological seals will be necessary for sealing this breakout and may also be necessary at the proposed Channel Canyon Breakout. The PHC (Chapter 4, Page 4-36.2) states that post-mining discharge is also likely to occur from portals in Deer Creek Canyon, Grimes Wash, North Fork of Meetinghouse Canyon, and Rilda Canyon. The MRP needs to address drains and seals for these portals as well.

13. Chapter 4, Probable Hydrologic Consequences

In the revised version (3/1/89 Rev.) there are several missing and incorrect references to maps, figures and tables. The references need to be cleaned up to refer to the correct items in the MRP.

14. Chapter 4, Postmining Uses (784.15), Page 4-38

The Manti-LaSal National Forest Land and Resource Management Plan, 1986, should be referenced.

15. Chapter 4, Subsidence Control Plan (UMC 784.20)

This section needs to be updated to address escarpment failures and extensive cracks which have occurred in the Grimes Wash and Newberry Canyon areas, and discuss the research which is being conducted to develop

predictive models regarding escarpment failures, and to determine surface impacts and the effectiveness of currently required mitigations. The unstable conditions which presently exist along the east slope of Grimes Wash due to pillar recovery should be addressed. Even though detailed information will be presented in annual reports, a summary needs to be included in this section.

16. Chapter 4, Cottonwood Creek Buffer Zone, Page 4-49-A (5/4/84 Rev.)  
UDOGM Comment UMC 784.20

This section states that mining is planned beneath Cottonwood Creek and that second mining will be limited to areas where there is more than 400 ft. of overburden. The Forest Service will not agree to any mining under a perennial drainage which has potential to cause subsidence as discussed in special lease stipulations. Before we would consent to mining under the stream, detailed geotechnical information must be provided which would substantiate beyond a reasonable doubt that mining induced subsidence will not occur in the foreseeable future, or that the creek is intermittent and that hydrologic impacts will not occur.

A reference is made to Map 3-1 (Sheet 1 of 2) to show barrier pillars to be left in place to provide protection from subsidence under Cottonwood Creek. This map does not show any planned mining under Cottonwood Creek.

17. Chapter 4, Protection of Fish and Wildlife (UMC 817.97), Page 4-54 (3/1/89 Rev.)  
UDOGM Comment UMC 783.17

Provisions for replacing water at seeps and springs, proven to be lost due to subsidence, and restoring water flow in surface drainages due to subsidence cracks have been deleted and replaced by a reference to Condition No. 2, Cottonwood/Wilberg Mine, Attachment "A", Special Conditions, 9/30/88. This document cannot be found in the MRP. Either the referenced document (with adequate measures for replacing water) must be referenced and included in the MRP, or the measures must be specifically discussed in this section.

Please contact the Forest Supervisor's Office in Price, Utah, if you have any questions.

Sincerely,



for  
GEORGE A. MORRIS  
Forest Supervisor

Enclosures

Forest Service

Interim Seed Mix

UP&L Co. Wilberg/Cottonwood Mine

Grasses

Lbs./Ac.

Thickspike wheatgrass	Agropyron dasystachyum	1.
Crested wheatgrass	Agropyron cristatum	1.
Western wheatgrass	Agropyron smithii	3.
Intermediate wheatgrass	Agropyron intermedium	3.
Smooth brome grass	Bromus inermis	2.
Indian ricegrass	Oryzopsis hymenoides	1.
Needle-and-thread grass	Stipa comata	1.
		<u>12.</u>

Forbs

Pacific aster	Aster chilensis var. adscendens	0.3
Utah vetch	Hedysarum boreale	1.
Yellow sweetclover	Melilotus officinalis	0.5
Alfalfa	Medicago sativa var. nomad	0.5
Eaton penstemon	Penstemon eatonii	0.1

Shrubs - Test Planting

Serviceberry	Amelanchier alnifolia
Fourwing saltbush	Atriplex canescens
Snowberry	Symphoricarpos oreophilus
Winterfat	Ceratoides lanata

Forest Service

Final Revegetative Seed Mix

UP&L Co. Wilberg/Cottonwood Mine

Grasses

Lbs./Ac.

Western wheatgrass	Agropyron smithii	3.
Intermediate wheatgrass	Agropyron intermedium	3.
Bluebunch wheatgrass	Agropyron spicatum	3.
Indian ricegrass	Oryzopsis hymenoides	1.
Needle-and-thread grass	Stipa comata	1.

Forbs

Blueleaf aster	Aster glaucodes	0.5
Utah sweet vetch	Hedysarum boreale	1.
Small burnet	Sanguisorba minor	1.
Lewis flax	Linum lewisii	0.5
Globemallow	Sphaeralcea coccinea	0.5
Yellow sweetclover	Melilotus officinalis	1.

Shrubs

Plant/Ac.

Serviceberry	Amelanchier alnifolia	100
Fourwing saltbush	Atriplex canescens	100
Green Mormon tea	Ephedra viridis	100
Big white rabbitbrush	Chrysothamnus nauseosus var. albicaulis	50

Trees

Douglas-fir	Pseudotsuga menziesii	30
Colorado blue spruce	Picea pungens	20