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UNITED STATES DEPARTMENT OF AGRICULTURE

FOREST SERVICE

Manti-LaSal National Forest

599 West Price River Drive

Price, Utah 84501

2820

July 1, 1981

Mr. John Nadolski  
OSM - Reclamation and Enforcement  
Brooks Towers - 1020 15th Street  
Denver, Colorado 80202



Dear Mr. Nadolski:

The Forest Service has reviewed a copy of the Mine Permit Application for Utah Power and Light's Deer Creek Mine. Our comments are enclosed. We hope they will be beneficial to those Federal, State, and local agencies involved with the mine permit.

If there are any questions, please contact us.

Sincerely,

for  
REED C. CHRISTENSEN  
Forest Supervisor

Enclosure

DEER CREEK MINE PERMIT APPLICATION

Comments

Page 1-13

"Owners of surface lands contiguous to the permit area." The Manti-LaSal National Forest is listed, but we are only a surface management agency.

Page 1-15

"The completion of this exchange is still pending and may include some areas as yet undefined, contiguous to the permit area." It is only an assumption that the exchange will take place. An official ruling has not yet been published.

Page 2-5

"Because of the deep entrenchment of both Huntington and Cottonwood Creeks, the surface geology is highly variable." This section only mentions stratigraphy, what about other aspects of geology?

Page 2-57

"Generally, this area is a flat-topped mesa..." A mesa is defined as flat-topped.

Page 2-71

"The Starpoint Sandstone immediately underlies the Hiawatha Coal Seam. This sandstone unit exhibits some characteristics of an aquifer, but experiences little recharge." What characteristics does the Starpoint exhibit as an aquifer?

Page 2-72

"Generally, when exploration holes are drilled through the overlying strata into the Starpoint Sandstone, water, if present, flows out the bottom of the drill hole through fractures which are often present in the Starpoint Sandstone." Doesn't this rapid flow indicate a good permeability?

Page 2-73

"Excess water not utilized in the mining operation or for domestic use was either pumped to storage areas or discharged." Doesn't the above statement indicate a large quantity of perched water? What volume is involved?

Page 2-80

"The high concentration of suspended solids indicates a highly eroding condition present at this time." Why is the erosion in 1979 so much more than in 1978? What can be done to decrease the rate of erosion?

Page 2-82

"Cottonwood Creek was sampled by Utah Power and Light in 1979 in the vicinity of the UP&L proposed portal (located near the Trail Mountain Mine) which is presently in the early exploratory stage." Not true.

Page 2-84

"Of particular interest in Table 10, are the extremely high suspended sediment values from the Right Fork of the Grimes Wash. The samples were obtained during... 1979 spring runoff period. It is expected that these high values would be reduced to nearly zero during low flow conditions..." This aspect is expected to be answered with a followup report.

Page 2-84

"The majority of springs on East Mountain occur in the North Horn Formation with the major flowing springs restricted to this formation." Are the aquifers confined, unconfined, at the base of the North Horn Formation?

Page 2-86

"Interestingly, surface discharges in Cottonwood and Huntington Creeks were lower in 1979 while East Mountain springs discharges were significantly higher." Is this due to seasonal variations, subsidence, etc.?

"If the springs on East Mountain were not an ample water supply to replace the disrupted water, then water could be pumped to the surface from the Deer Creek Mine, from the surrounding streams, or from wells which would be developed on the property." For perpetuity?

Page 2-91

"No new disturbances are planned within the permit area." How much disturbance for portal facilities, roads, etc.?

Page 2-102

"Soil tests on the disturbed and undisturbed areas and coal waste show that the materials in the portal area should, with terracing and irrigation, support select vegetative materials." Where is this material? Is the material in the portal area above the portal or below it on the steep slopes? Has this select vegetative materials list been reviewed by anyone other than UP&L? Is there a map for the proposed terracing showing before and after at the same scale and contour interval?

Page 2-102

"...take the necessary reclamation measures to dispose of or cover the 'rough spots' in order to assure success of revegetation attempts." What necessary measures have been proposed?

Page 2-111

"Grass seeds will be planted in the trenches, while containerized shrubs will be transplanted into small basins among the trenches." Are the seed and shrub mixtures approved?

Page 2-119

"To the best of our knowledge, no T&E plant species or critical habitat for T&E wildlife species occur in the disturbed areas of the subject mining operations." Was the Forest Service consulted? Are there any T&E plants or animals outside the disturbed area, but inside the permit area? Can they be affected later by subsidence?

Page 2-120

"At the Deer Creek Mine, some riparian habitat was destroyed at the mine site." Are there future plans to re-introduce riparian habitat during reclamation activities?

Page 2-120

"The truck traffic on the mine access roads kills an unknown number of deer each year." Does UP&L have programs proposed or started in which to try and reduce road kills?

Page 2-120

"The construction of the Cottonwood fan portal will disturb about 5 acres of pinyon-juniper habitat on a steep rock southwest facing slope." Are not the portals sealed, and the area under reclamation now, or are some new activities proposed?

Page 2-122

"These mines are located in steep rocky canyons with poor soils, consequently, the rehabilitation results will probably be poor to nonexistent." This does not coincide with what was previously said on reclamation.

Page 2-124

"The survey will begin in February and continue through June 1981." The Forest Service would like a copy of the raptor and migrating bird survey.

Page 2-124

"Annual surveys will be conducted to assess the impact, if any, of wildlife use in and around the fan portal." The initial disturbance took place some time ago. The base level is not established. The fan portals are sealed, and the area under reclamation.

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Page 3-3

"Results of the study will be submitted to the regulatory authority, when they are complete." What is the expected date of completion? The Forest Service would like a copy.

Page 3-15

"Facility photographs are included..." The sentence is incomplete.

Page 3-20

"The reclaimed tunnel and bin will be backfilled with non-toxic fill. The fill will be contoured and revegetated to be compatible with the natural surroundings." More detail is needed.

Pages 3-21, 3-22, 3-23, 3-24, 3-25, 3-26, 3-29, 3-32, and 3-38

"The concrete foundations will be broken up and used for coarse backfill." Where?

Page 3-28

"Asphalts will be broken up and used as coarse backfill during reclamation." Where?

Page 3-31

"Approximately 17,500 gallons of water per day are collected and treated for use as potable water. Excess mine water is conveyed through steel water lines to the Huntington Power Plant water system." Where is this water coming from? How much is going to the power plant?

Page 3-32

"In conjunction with reclamation of the mine yard fill..." Needs to be more specific about reclamation and revegetation.

Page 3-32

"...the sewer treatment facilities will be left in place to dry out." Needs to be more specific about reclamation and revegetation.

Page 3-39

"No plans exist to return coal processing wastes to the underground at Deer Creek Mine." What will be done with the disposal sites."

Page 3-40

"All areas...and weather permit." What does this have to do with air pollution control plans?

Page 3-46

"We suggest that structures are not buildings themselves but rather the earthen structure the facilities are built on (John Hardaway)." This does not agree with the SMCRA definition given on the previous page.

Page 3-52

"All these structures are supported by slabs...are suitable for use as riprap..." Where is all this riprap to be used?

Page 3-56

"Waste rock...will be gobbled until available space is exhausted." What about reclamation.

Page 3-60

"The fill is designed to be compatible with the natural surroundings and fulfill the post-mining land use." Needs to be more specific.

Page 4-1

"To leave in its final position, as shown, the mine area fill." What vegetation will be planted here? What erosion control methods are to be used?

Page 4-2

"To slope all surfaces to protect surface runoff waters and reduce sedimentation loading." Where are the construction drawings and detailed narrative for this section?

Page 4-2

"To revegetate...to meet the slated post-mine land use." This section needs to be more specific.

Page 4-2

"To provide a separate disturbed water collection system for sediment control." Where are the construction drawings and detailed narrative for this action?

Page 4-5

"The access road, which parallels the fourth section of the diversion culvert, will remain in service as an access way for recreation under U.S. Forest Service Management." Has the Forest Service provided this input or is it the wish of Utah Power and Light?

Page 4-6

"The remaining volume in the bin area will be filled with earth material dozed from the creek using a frontend loader." Will this affect spawning ground for fisheries? This action needs to be expanded on.

Pages 4-9 and 4-10

Is there an approved Forest Service list for revegetation?

Page 4-11

"Hot spots that are identified shall be neutralized or covered as with toxic subsoils and areas of high iron content." This does not make sense.

Page 4-12

"Revegetation monitoring shall determine if reseeding is necessary and what weed and pest control measures are needed to insure successful revegetation." What is meant by successful revegetation? How long is the post-mining revegetation monitoring intended?

Page 4-12

"Where the soil is deep enough and relatively free of rocks, the same procedure as explained for the pinyon-juniper vegetation type will be followed." Is there a map showing these areas? One is needed.

Page 4-16

"Provisions for equally stringent water control are built in the final reclamation plan during the bonding period..." What are they?

Page 4-17

"The impacts from this occurrence (subsidence) should be minimal because the water will only be temporarily detained or redistributed." Redistribution of surface water could have disastrous effects to vegetation, range, and wildlife. Only time will indicate the effects of subsidence on the existing surface resources.

Page 4-17

"The majority of the springs will be unaffected by mining activities..." What is this based on? There is no fact to support this assumption.

Page 4-18

"This should insure early detection of any change to the hydrologic regime." Are there any contingency plans to alleviate harmful changes to the surface resources because of subsidence?

Page 4-18

"The mining activities should not affect the surface waters to a point where the present land use would be downgraded." This statement is only an assumption. There is nothing to support it.

Page 4-20

"The main mine area structure will remain in place allowing for a flat, stable planting surface..." How is this flat area supposed to blend into the natural surroundings as previously stated?

Page 4-24

"The water seeps and springs are numerous and varied in nature; a few are perennial during the unfrozen months, while some dry up over the summer and some only appear in "wet" years. There should be no effects to grazing, timber, or wildlife." What is the relationship of the springs and seeps to the geology?

Page 4-25 "

"Utah Power and Light Company intends to minimize surface effects of subsidence by adopting, wherever practical, the longwall method of mining..." How does longwall mining reduce the surface effects of subsidence?

Page 4-26

"...planned subsidence...causing no appreciable change to present land uses." Throughout this section on subsidence, it has been assumed that subsidence will not appreciably affect groundwater. This assumption is now being stated as a fact, which it is not.

Page 4-28

"Regarding the seeps and springs, Utah Power and Light has been actively monitoring these, together with water generated with the mines, for some three years to date and has set up an organization with the full intention of monitoring them for the next several years." This monitoring needs to be done annually.

Page 4-29

"...the Applicant will repair the damage caused by subsidence resulting from the Applicant's activities or compensate the owners for such damage." A letter to the owner with an agreement for compensation should be included with the mine plan.

Page 4-29

"All structures that could be affected by subsidence are surveyed and documented." This list should be in the Appendices.

Page 4-31

"No further disturbance is contemplated and existing riparian communities shall remain unaffected during operation." Is the affected riparian zone going to be upgraded to the pre-mining time?

Page 4-32

"...education..." When is this education program to be implemented?

Volume 3Page X-2

"As of this date, no approval for the photogrammetrical subsidence monitoring plan submitted has been acknowledged." As you know from previous correspondence and meetings, the Forest Service is withholding concurrence to the Deer Creek program. The Forest Service needs to study the results of your monitoring efforts over several years to see if indeed it meets Forest Service needs.

Page X-3

"We are requesting a letter of approval for this monitoring." See comment immediately above (X-2).

Volume 4

Which map does the geologic cross-sections correlate to?

Map 2-3

D-D', lease number wrong--SL-084900 should be SL-064900.

Volume 5Map 4-1

The final reclamation map drawn to a scale of 1: = 100' and a contour interval of 50' is very general. One cannot tell much about the affected area.