

United States
Department of
Agriculture

Forest
Service

Manti-LaSal
National Forest

599 West Price River Dr.
Price, Utah 84501

Reply to: 2820

Date: October 5, 1990

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State of Utah Natural Resources
Division of Oil, Gas and Mining
355 West North Temple
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Salt Lake City, Utah 84180-1203

DIVISION OF
OIL, GAS & MINING

RE: Federal Lease Tract Addition, Beaver Creek Coal Company, Trail Mountain #9
Mine, ACT/015/009, Folder #2, Emery County, Utah

Dear Lowell:

We have reviewed the Permit Application Package (PAP) and the Division's Initial Completeness Review comments (September 13, 1990). In addition to commenting on the PAP, we will need to be identified as a cooperating agency in preparation of the Technical Analysis and Environmental Assessment as described at the end of this letter. The following are our comments on the PAP:

1. Chapter 3, Operating Plan

Section 521 of the R614 Rules requires that the permit application describe and identify the lands subject to coal mining and reclamation operations over the estimated life of the operations and the size, sequence, and timing of sub-areas for which it is anticipated that individual permits for mining will be sought.

Figure 3-6 is not of an adequate scale or detail to show where and how mining is proposed to take place in the project area. It is not evident where pillars will be extracted or left in place and where full support mining will be employed to prevent subsidence. The map should be on a larger scale topographic base to show how mining relates to the surface topography.

This figure shows mining for the years 1990-1999 with no mining projected for the northwest section of the new lease. It is not clear from the map if this area is not proposed for mining or if the projection of mining ended in the year 1999.

2. Section 3.3.2.2, Protection of Surface Structures and Streams

Section 521.122 and 123 of the R614 Rules require location of surface and subsurface man-made features within, passing through, or passing over the proposed permit area.

This section states that no surface structures or streams will be undermined during the life of the mine. Forest Development Road 50035, Forest Development Trail 50051, and several stockponds and spring developments will be undermined. These structures need to be recognized with a commitment that they will be repaired if damaged.

The southeastern area of the lease was treated by the Forest Service to improve watershed conditions. The watershed treatments consisted of constructing contour furrows followed by seeding with vegetation species needed to rapidly stabilize the soils. The contour furrows must be identified as man-made structures to be repaired if damaged by subsidence.

It has not been determined if the small drainage at the southwestern end of the tract which drains into Straight Canyon is perennial or intermittent. Even though the mine plan at the present time does not show that this drainage will be undermined, this determination will need to be made as soon as possible so that the life-of-mine mining plan can be planned in this area (see item 1, paragraph 3, above). If the drainage is perennial, it must be protected from subsidence in accordance with lease stipulations.

3. Section 4.4.2, Mine Plan Area Land Use

The Manti-La Sal National Forest's Land and Resource Management Plan, 1986, must be referenced. Management emphasis for specific management units is defined in the Forest Plan. These areas should be discussed and displayed on Figure 4-3. The watershed improvement area, shown as a WPE management unit (Watershed Protection/Improvement), is shown on the Forest Plan maps and should be discussed and displayed on Figure 4-3.

4. Section 6.5.1, Exploration and Drilling

In the first paragraph on page 6-6, it is stated that the locations, dates and depth of exploration drill holes are shown on Figure 6-1. This reference is incorrect and needs to be corrected. This information is presented on Figure 6-4.

5. Section 6.5.5.1, Reserve Calculations

The coal isopach map for the Hiawatha seam (Figure 6-7) is not included in the permit application package nor the approved MRP as stated in the first paragraph. This needs to be added.

6. Section 6.7.2, Local Formations Structure

This section is not complete. Even though it lies west of the lease area, the Joe's Valley Fault influences the geology and groundwater occurrence in the lease area. The fault zone needs to be recognized and discussed.

Figure 6-10 in the approved MRP is referenced to display the dip which is controlled by the Joe's Valley Anticline. A more accurate reference would be Figure 6-4.

7. Chapter 7, Hydrology

The narrative contains several references to hydrology studies and reports which are not listed in the bibliography. The references and bibliography must be complete and properly referenced so the reader can follow and check the credibility of the conclusions.

8. Section 7.1.3.1, Regional Groundwater Hydrology

On page 7-4, 1981 and 1985 spring surveys are referenced to show the occurrence of springs in the mine plan and adjacent area. A new, more recent, spring inventory is needed to make sure that current conditions are used as the basis for the conclusions and monitoring plan. In addition, the maps should show all water right claims.

A spring has been developed by the Sportsman's Lodge as a culinary water source under a Forest Service special-use permit in Joe's Valley. This spring lies down-dip of the mine between the tract and the Joe's Valley Fault. This spring needs to be inventoried, monitored and identified for replacement of water in the event that it is impacted by mining.

9. Section 7.1.6.1, Alternative Water Supply

On page 7-15 there is a reference to Figure 7-2 to show the location of pond 35-1P. This reference is incorrect. The location of the pond is shown on Figure 7-9.

The commitment for replacing water is unacceptable as written. As required in the lease stipulations, the operator will be required to replace surface water identified for protection, that may be lost or adversely affected by mining operations, with water from an alternate source in sufficient quantity and quality to maintain existing riparian habitat, fishery habitat, livestock and wildlife use, or other land uses. All of the springs identified in the area and the stockponds must be identified from a recent survey. The operator must

then identify water rights which have been filed and identify the water sources to be protected through a review process with the regulatory authority and surface management agency. All of the stockponds, spring developments and springs with filed water rights must be identified for monitoring and repair/replacement. Additional springs must be identified for protection and monitored if they are essential to wildlife/livestock use. In addition, the method of repair/replacement must be acceptable to the regulatory authority and surface management agency, not solely at the discretion of the operator as implied at the top of page 7-15.

10. Section 7.1.5, Effects of Mining on the Groundwater Hydrologic Balance

The operator states that the geology of the new lease area is the same as the existing mine area, therefore, the impacts should be the same as have occurred in the past. The operator fails to recognize the presence of Joe's Valley Reservoir and that the coal seam to be mined lies below the elevation of the reservoir along the western and southern ends of the lease. Figure 7-2, compiled by the operator, shows the potentiometric surface of the Black Hawk/Starpoint aquifer in relation to the level of the minable coal seam. This figure indicates that as mining progresses to the level below the reservoir and potentiometric surface of the aquifer, water intercepted in the mine workings may increase significantly. This needs to be investigated and evaluated in the PHC and CHIA so that the impacts can be predicted and mitigated. This impact is identified in the Environmental Assessment prepared by the Forest Service for the lease.

11. Section 7.2, Surface Water Hydrology

This section states that no perennial streams or other significant surface water occurs on the new lease area. We do not agree with this statement. The springs within the new lease area provide significant and important sources of water for wildlife and livestock. The small drainage which drains the southwestern portion of the lease may be perennial. The operator needs to conduct a study to determine if this drainage is perennial. If it is perennial, it must be identified for protection from subsidence.

12. Chapter 8, Soil Resources

Even though mapping of soils on the entire permit area is not required, the operator should reference available Forest Service and Soil Conservation Service soil map inventories. Dan Larsen (Soil Scientist) is the contact for the Manti-La Sal National Forest.

13. Chapter 9, Vegetation Resources

This section is not complete or adequate. Lease stipulations require mapping and monitoring of vegetation communities in the entire lease area. In addition to vegetative communities, the watershed improvement areas must be mapped and monitored for damage to furrows and reseeded vegetation. The approved MRP contains a map and description of the vegetative communities in the existing permit area. This information has not been supplemented to include the new lease.

The Permit Application Package and existing MRP are not in conformance with Federal Lease stipulations which require baseline data collection and monitoring of vegetative resources over the entire lease area. Please reference our letter to the Division in regard to the 5-year renewal, dated March 6, 1990. The vegetative communities of the permit area need to be mapped and monitored. The objective of monitoring is to determine if mining and subsidence cause any changes to the location and general condition of plant communities along with any mining induced changes to ground and surface water conditions. Even though not specifically required, we feel that color infrared aerial photography is the most efficient and economic method for conducting this monitoring. It can be done at 5-year intervals corresponding with the 5-year terms. The results should be discussed in the 5-year MRP renewal updated materials and annual hydrologic monitoring reports. The PAP and MRP need to adequately address the lease stipulations. Color infrared photography is available for the existing permit area and should be used for monitoring purposes.

14. Chapter 10, Fish and Wildlife Resources

The PAP references the existing MRP for information on wildlife. The information contained in the MRP does not adequately cover the new lease area. This information needs to be updated and supplemented as follows:

The raptor survey information needs to be updated to include the data from the 1989 survey of the Straight Canyon area.

It is stated on page 10-48 of the existing MRP that no elk calving areas are known or likely to exist within the project boundaries. This is not correct, considering the new lease area which contains elk calving grounds.

15. Section 12.4.2, Subsidence Experience Over Coal Mines

The Bureau of Land Management (BLM) and the Forest Service (FS) used a 22 degree angle-of-draw to evaluate the potential for inducing escarpment failures during preparation of the tract delineation report and environmental analysis. The PAP discusses a 15 degree angle-of-draw. The PAP does not provide adequate information to substantiate that the average angle-of-draw will be 15 degrees.

16. Section 12.4.3, Subsidence Effects and Control

The stability of the canyon slopes below the mine area and the safety of travelers along the highways in Straight and Cottonwood Canyons is of utmost importance, considering the vertical nature of the canyon slopes and existing instability. The operator must address the potential for mining/subsidence to induce escarpment failures or dislodge rocks onto the roadways in Straight and Cottonwood Canyon and demonstrate that adequate measures will be taken to prevent mining induced escarpment failures or landslides and provide for public safety.

On page 12-4 the operator commits to restore areas impacted by subsidence-caused surface cracks which are of a size or nature that could, in the Division's opinion, either injure or kill grazing livestock or wildlife. This statement needs to be revised to include damage to the contour furrows, and that an evaluation of the danger to livestock, wildlife and the public will be conducted by both the Division and the surface management agency (Forest Service).

The next sentence states that restoration will involve backfilling and recontouring. Under the Federal and State, rules this would be considered surface disturbance which also involves revegetation to required standards. This statement needs to be revised to include revegetation.

17. Section 12.4.4, Subsidence Monitoring

The proposed subsidence monitoring plan is not adequate. Survey monuments must be strategically located and there must be enough data points to measure and determine the angle-of-draw and maximum subsidence. If landslides or escarpment failures occur in Straight and Cottonwood Canyons, there needs to be adequate monitoring information available to determine if they were induced by subsidence. This could be done by installing lasar prisms on the canyon rim which could be read from the canyon bottom or other locations not affected from subsidence.

The subsidence plan needs to include survey monuments well beyond the panels in the areas where subsidence will occur to determine the angle-of-draw. The amount, extent and angle-of-draw might be different along the escarpment area due to the lack of buttressing forces.

In addition to measured survey data, an annual reconnaissance of the mined area is necessary to locate, map and describe any observable surface indications of subsidence. This information needs to be included in the annual subsidence report.

The existing MRP is referenced in regard to the subsidence monitoring plan. The MRP discusses the Forest Service/Mine Operator photogrammetric monitoring program which has been discontinued. The MRP/PAP need to describe the current subsidence monitoring program which is being conducted in the existing mine area and the new lease (see comments in the March 6, 1990, letter to the Division from the Forest Service in regard to the 5-year renewal).

In addition to providing completeness and technical adequacy comments on the Permit Application Package we need to be involved as a cooperating agency in the preparation of the Technical Adequacy Review (TA) and Environmental Assessment (EA). The Forest Service and BLM completed the Environmental Assessment for leasing of the Trail Mountain Tract (U-64375) with the Office of Surface Mining participating as a cooperating agency. The Office of Surface Mining and Forest Service have joint responsibilities for conducting an environmental analysis for the proposal to mine the lease as proposed by Beaver Creek Coal Company.

It is our understanding that the Division will take the lead in preparation of the EA under the Cooperative Agreement with the Office of Surface Mining. The Forest Service will need to be identified as a cooperating agency and participate in preparation of the EA in accordance with Council of Environmental Quality Regulations 40 CFR 1501.6. As a cooperating agency the Forest Service would participate in project scoping and preparation of the EA. We would request that a Forest Service officer be included on the interdisciplinary team and that the Forest Service have an opportunity to review and comment on drafts. Once the EA is completed to the satisfaction of the participating agencies, the Office of Surface Mining and Forest Service will either prepare a joint decision notice or separate decision notices.

Please contact Aaron Howe or Carter Reed at the Forest Supervisor's office in Price, Utah, to coordinate the above actions.

Sincerely,



for
GEORGE A. MORRIS
Forest Supervisor