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United States
Department of
Agriculture

Forest
Service

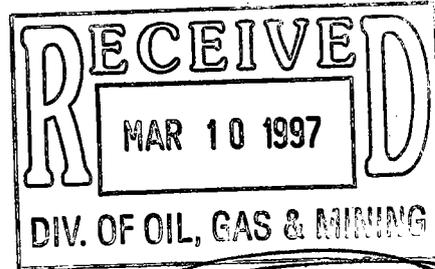
Manti-La Sal
National Forest

599 West Price River Dr.
Price, Utah 84501
Phone # (801) 637-2817
Fax # (801) 637-4940

File Code: 2820-4

Date: March 7, 1997

Utah Division of Oil, Gas and Mining
ATTN: Daron Haddock
1594 West North Temple, Suite 1210
P.O. Box 145801
Salt Lake City, Utah 84114-5801



RE: North Rilda Lease Extension, PacifiCorp, Deer Creek Mine, ACT/015/018-97C,
Folder #2, Emery County, Utah

#2/A
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Dear Daron,

The Manti-La Sal National Forest has reviewed PacifiCorp's application for an incidental boundary change to expand the Deer Creek Mine permit area. The Forest Service is not able to consent to the incidental boundary change as it includes activities inconsistent with the lease stipulations.

The Forest Service has the responsibility to protect surface facilities and resources in areas to be mined for coal within the National Forest. PacifiCorp has not provided sufficient information to document protection of the alluvial system in the North Fork of Rilda Canyon or the escarpment areas.

Comments on the specific resources of concern are:

1. The North Fork of Rilda Canyon has an important alluvial system which contributes over 80% of the flow to the North Emery Water Users Association springs and perennial flow to Rilda Creek below the forks. Overburden in the canyon bottom is shallow (<200 feet). PacifiCorp must provide information to demonstrate how they would protect the alluvial system from the effects of subsidence.

a. Describe how the North Fork of Rilda Creek and the associated alluvial system and riparian zone would be protected from subsidence for the long-term (hundreds of years), and also describe how the long-term stability of the South Fork of Rilda Canyon would be maintained. The calculations for protection methods must be provided so they can be evaluated. Methods such as backfilling must be considered.

b. Describe how the protection zone along the alluvial system was developed; it must include a buffer zone that includes the alluvial system and riparian zone, and angle-of-draw calculations.

2. Except at specifically approved locations, the escarpments must be protected from failure. Where escarpment failure is proposed or anticipated, an environmental analysis would be needed to:

- a. Disclose how much escarpment could fail, based on analytical methods, observation of similar areas, geologic/topographic conditions, and panel orientation.
- b. Disclose what resources would be affected by escarpment failure and describe the nature and magnitude of the effects. Vegetation, wildlife and habitat, threatened, endangered, and sensitive species, cultural and paleontological resources, hazards, and visual quality must be addressed.

The environmental process would take approximately 6 month and would need to be completed before the Forest Service could consent to any escarpment failure.

PacifiCorp has made many statements that surface damages would be minimal or non-existent, but has not provided specific data to support their statements. The following items must also be addressed:

115. Status of Unsuitability Claims, page 6.

PacifiCorp must show that the buffer distances from dwellings or roads will protect against subsidence. This must be based on overburden thickness and angle of draw. Stating only a linear distance gives no indication of whether subsidence would affect the surface structures. (There are no known dwellings or roads within the area, so PacifiCorp may wish to omit this section.)

525. Subsidence, general comments.

Lease stipulations preclude subsidence and failure of escarpments. PacifiCorp has not discussed the mining under the Right Fork of Rilda Canyon and the escarpments or overburden thicknesses, or stated how their mining would be done to prevent subsidence of the stream channel and buffer zone. PacifiCorp must provide the information before the Forest Service can consent to the incidental boundary change.

525. Subsidence, page 19, last sentence of second paragraph.

States that "data collected suggests that the springs on the surface will not be affected by the subsidence." Present data and their interpretation to substantiate the inference.

525. Subsidence, Aerial Photogrammetry, pages 22-23.

The aerial photogrammetry data collected on East Mountain by PacifiCorp have been of marginal usefulness in areas of rough topography. Explain why it is felt this method would be usable in the similar topography of the Rilda Canyon area. We recommend that supplemental control points for the aerial photogrammetry be established above and below the escarpments to ensure accurate subsidence monitoring and mapping.

525. Subsidence, South Castlegate Escarpment - North Rilda Canyon Area, second paragraph, page 24.

States that "Final mining approval of the referenced southern longwall panels will be based on the objective evaluation of the predictive model and assessment of potential surface impact from full-extraction mining within the affected area." If subsidence is likely to cause escarpment failures, an environmental analysis would be required as the basis for the Forest Service consent decision. This decision would be based on the potential impacts.

525. Subsidence, Mitigation of Subsidence Damage Effects, first paragraph on page 25.

If the water loss occurs on National Forest System lands, PacifiCorp must notify the Forest Service immediately. Also identify sources available for water replacement.

525. Subsidence, Subsidence Control, first paragraph, page 25.

PacifiCorp must state that they would conduct mining operations to prevent subsidence of the North Fork of Rilda Creek and prevent escarpment failures.

700. Hydrology, general comments.

As stated above for the "525. Subsidence" section, PacifiCorp must discuss the mining under the Right Fork of Rilda Canyon, overburden thickness, and depth of the alluvial system, and provide data showing that they would not subside the North Fork of Rilda Creek and the stream buffer zone. A plan for mitigation must be developed in the event they intercept water from the fluvial system.

700. Hydrology, Alluvial Aquifers, page 13.

PacifiCorp references a report that states "alluvia in the area are found solely along Huntington Creek below the Rilda Canyon confluence in the Huntington drainage system." However, PacifiCorp's drill data show that there is an alluvial system in Rilda Canyon and that it supports large springs. This apparent conflict must be resolved.

700. Hydrology, 4. Springs and Seeps, page 16, last paragraph.

Information should be included on ground-water flow direction in the Starpoint Sandstone below the North Rilda extension, and on the depth to the saturated zone.

700. Hydrology, 6. Mine Dewatering, pages 19-20.

PacifiCorp should state how much water they expect to encounter in the North Rilda extension, and explain the basis for their expectation.

728. Probable Hydrologic Consequences Determination, General comment.

PacifiCorp must provide a detailed monitoring plan for all water sources. Add a stream monitoring point upstream of the point where their mains would pass under the Right Fork of Rilda Canyon, in order to show impacts due to undermining.

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728. Probable Hydrologic Consequences Determination, Hydrologic Balance - Surface Water System, page 66, first paragraph.

States "subsidence should not cause significant impacts to the surface water system." However, there are no data to support this; provide calculations that support their statement. Also disclose any impacts which may occur not considered to be significant.

728. Probable Hydrologic Consequences Determination, Hydrologic Balance - Groundwater, page 71.

Add a section describing mining under the creek and alluvial deposits.

728. Probable Hydrologic Consequences Determination, A. Subsidence: Perched Aquifer Systems Above the Mine Horizon, first paragraph, page 71.

Include a sampling plan for the two springs included within the North Rilda permit area.

728. Probable Hydrologic Consequences Determination, Groundwater System, page 73.

Water monitoring must be done while the mains are being driven under the Right Fork of Rilda Canyon, and continued during mining.

728. Probable Hydrologic Consequences Determination, B. Mining in the Rilda Canyon Area - NEWUA Springs, third paragraph, page 73.

Include a discussion of how the monitoring wells near the NEWUA springs and other surface wells in the area would be used for monitoring/sampling. Add the frequency of monitoring of the flumes and wells.

728. Probable Hydrologic Consequences Determination, C. Interception of Groundwater by Mine Workings, Post Mining, page 91-92.

Identify where mine water be discharged.

R645-731-200 Water Monitoring, Groundwater, B. In-Mine, page 95.

Clarify how and where the in-mine samples are to be taken (roof drips or from in-mine wells). If from wells, at least three should be used to establish flow direction and gradient.

R645-301-731.600 Stream Buffer Zones, page 97.

To prevent subsidence of streams, the stream buffer zone must be based on the width of the channel and alluvial system, the actual maximum angle-of-draw observed in the area, and overburden thickness. A buffer zone of 100 feet may or may not be adequate.

R645-301-731.800 Water Rights and Replacement, pages 97-98.

Identify the alternate water source to be used if they adversely impact a water source.

We received the letter from the Utah Division of Oil, Gas and Mining, dated February 7, 1997, which stated PacifiCorp's submittal for this incidental boundary change was available for review in your offices. In the future please send us complete copies of the documents along with your notice for all incidental boundary changes and any other major amendments. We must also have a copy of the Cumulative Hydrologic Impact Analysis for this lease extension proposal.

Please contact Liane Mattson or Dale Harber at (801) 637-2817 if you have any questions.

Sincerely,



for
JANETTE S. KAISER
Forest Supervisor

cc: USDA - Office of Surface Mining
Reclamation and Enforcement
Attn: Mr. Ranvir Singh
1999 Broadway
Suite 3320
Denver, CO 80202-5733

Energy West
Attn: Chuck Semborski
P.O. Box 310
Huntington, Utah 84528