

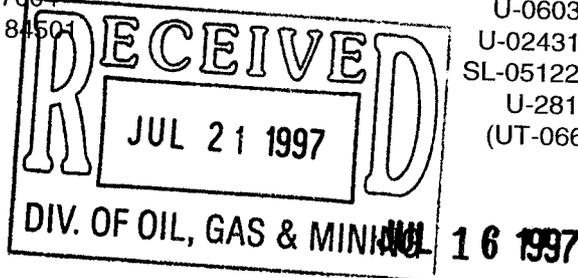


United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Moab District
 Price River/San Rafael Resource Area
 125 South 600 West
 P. O. Box 7004
 Price, Utah 84501

3482
 U-06039
 U-024317
 SL-051221
 U-2810
 (UT-066)



Pamela Grubaugh-Littig
 Permit Supervisor
 Department of Utah Natural Resources
 Division of Oil, Gas and Mining
 1594 West North Temple, Suite 1210
 Box 145801
 Salt Lake City, Utah 84114-5801

Re: Resource Recovery and Protection Plan (R2P2), PacifiCorp, Deer Creek Mine, Emery County, Utah

Dear Ms. Grubaugh-Littig

On May 16, 1997, the Bureau of Land Management (BLM) received from your office for our review/comments, PacifiCorp's response to technical deficiencies concerning the North Rilda area. Also, on July 2nd, we received from the Manti-LaSal National Forest (FS), PacifiCorp's revisions concerning:

- 1) the ground stability of the 4th North Mains crossing of the Right Fork Rilda Canyon; and
- 2) the Castlegate Escarpment statement of mining in the North Rilda area,

which was submitted to their office on the same date.

In addition to your request for BLM's review/comments, the FS has requested documentation of our findings concerning the location and entry stability of the proposed route (4th North Mains) accessing reserves of the Blind Canyon and Hiawatha coal seams in the North Rilda area.

As you may be aware, an approved R2P2 for the subject area is already in place. It is our understanding that PacifiCorp is now requesting to expand the current Deer Creek mining operation/mine permit area. In part, PacifiCorp seeks partial approval to afford a timely access into the North Rilda area in order to sustain the current level of longwall coal production.

According to the proposal, the 4th North Mains would access the reserves by advancing beyond the current permit boundary to the northern boundaries of Federal coal leases U-06039 and U-024317. Then, a series of east-west-oriented longwall panels would be developed along the east side of the Mains. These panels would be developed and sequentially extracted from the north to the south. PacifiCorp proposes to confine mine development at this time to the Blind Canyon coal seam and limit panel extraction to the four most northern panels.

Approval to complete extraction of the remaining panels in the Blind Canyon and Hiawatha Seams, which are developed under the Castlegate Escarpment, would be subject to the findings of the on-going Castlegate Escarpment Geotechnical Studies and number of other requirements made by the FS (archaeology survey, Spotted Bat survey, EA) on the affected areas.

BLM's findings regarding the 4th North Mains:

The projected access route into the North Rilda area is constrained by the Mill Fork Fault Zone to the west, a shallow overburden to the east, and a potential for the coal seam to pinch out in a westerly direction. These adverse geologic conditions more or less dictated the location of the access route and have precluded alternative routes into the subject area. The exact location of the 4th North Mains will be determined upon delineation of the Mill Fork Fault Zone or by the seam geology of the Blind Canyon Seam (insufficient seam height). PacifiCorp's intent is to explore the fault zone and seam geology by using either the continuous miner, in-mine drilling, surface drilling, or any combination of the three methodologies.

Subsequently, the access route will pass under an upland ephemeral stream in the right fork of the Rilda Canyon which has been designated by the Surface Managing Agency (SMA) as an important alluvial/hydrologic system and riparian zone. Due to the potential for surface impacts from subsidence, the SMA has restricted mining based on their concerns for the preservation of this hydrologic resource.

In efforts to ensure long-term stability of the underground excavation and to protect against surface impacts in the riparian zone, PacifiCorp has proposed the following mine design criteria:

- 1) Include, per SMA's request, a protective buffer zone of sufficient size to isolate the riparian zone from all potential effects of mining.
- 2) Utilize an entry/pillar configuration consisting of a 5-entry system with staggered crosscuts on 80x150-foot centers, with an entry width of 20 feet and entry height of 8 feet.
- 3) Provide secondary roof support, as needed, to maintain the long-term stability of the underground workings and to prevent/limit the potential of any future surface impacts.

Also, PacifiCorp has agreed to comply with the stipulated approval of the Minor Modification Request (The Proposed Location for the 4th North Mains off the 10th West Mains, North Rilda Canyon Reserve Access) dated February 13, 1997, from our office which states in part:

"PacifiCorp shall submit a written evaluation documenting entry and pillar stability for the Rilda Canyon Fork area. The specific areas to be addressed are the **4th North Mains in the Blind Canyon Seam** and the **access entries to the Hiawatha Seam reserve** where the entries pass under the riparian zones, as illustrated on Enclosure 2. The evaluation shall determine whether additional secondary entry support is needed to prevent the occurrence of surface impact due to mining. The evaluation shall be submitted 60 calendar days prior to final abandonment of the North Rilda Canyon area. The evaluation shall be subject to BLM's approval based on verification of the reported documentation."

The BLM concurs with PacifiCorp on the following:

We find the requested "riparian buffer zone" to be of sufficient size. It has been designed using a 15° "angle-of-draw"/"angle-of-influence" calculated from the Hiawathia Seam to delineate the zone. The referenced 15° "angle-of-draw" is an industry/agency-accepted standard, based on **full extraction mining**. In addition, PacifiCorp's mining experience at the Deer Creek, Trail Mountain and Cottonwood Mines over the last 20 years provides a sound basis for the design criteria. Furthermore, the area has been restricted to first mining, making the required buffer zone a moot issue.

In regard to the location and long-term stability of the 4th North Mains:

1) We recognize PacifiCorp's difficulty in determining the best location for the 4th North Mains and feel that an attempt to locate the Mill Fork fault zone by means of exploring with a continuous miner will not impact the surface or affect the hydrologic regime. However, it will provide data for maximizing recovery of the coal resource.

2) PacifiCorp, at the request of the SMA, provided step-by-step calculations to illustrate how the factor of safety was calculated for the coal pillars and entry opening. The safety factors were calculated by using **standard industry-accepted equations**. The calculated safety factors for pillar stability and entry opening are in the range of 3.57 to 23.94 and 4.92, respectively. In standard industry practice, safety factors used to define stable conditions and long-term stable conditions are 1 and 1.5 to 2, respectively. It is evident that PacifiCorp is well beyond the acceptable values for long-term stability.

Finally, approval for full-extraction (longwall) mining under the Castlegate Escarpment will be based on:

- 1) the **Castlegate Escarpment studies** provided by PacifiCorp; and
 - 2) an **objective environmental analysis** of the affected resources by the SMA,
- prior to BLM's determination.

The BLM has reviewed the proposed R2P2 Revisions/Deer Creek Mine Permit Expansion and all available information concerning the mining of the subject area. The BLM has determined that PacifiCorp's R2P2 for the Deer Creek Mine appears to be a logical and prudent mine plan. It is technically complete and complies with the Mineral Leasing Act of 1920, as amended, the regulations at 43 CFR 3480, the lease terms and conditions, and will achieve maximum economic recovery of the Federal coal. Therefore, we recommend approval of the proposed Deer Creek Mine permit expansion.

If you have any questions, please contact Barry Grosely in the Price River/San Rafael Resource Area at (801) 636-3606.

Sincerely,



Area Manager

cc: Manti-LaSal National Forest
599 Price River Drive
Price, Utah 84501

United States
Department of
Agriculture

Forest
Service

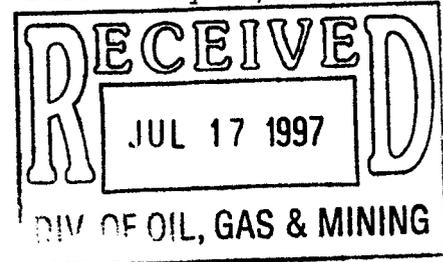
Manti-La Sal
National Forest

015/018 #2
599 West Price River Dr.
Price, Utah 84501
Phone # (801) 637-2817
Fax # (801) 637-4940

Reply to: 2820-4

Date: July 15, 1997

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



RE: Response to Deficiencies, North Rilda Lease, PacifiCorp, Deer Creek Mine,
ACT/015/18-97-1, Folder #3, Emery County, Utah

Dear Pam:

As discussed during yesterday's DOGM, BLM, FS conference call, clarification to our July 3, 1997 letter is needed. The referenced letter contained six requirements associated with Forest Service consent to the North Rilda Lease Extension. Clarifications in the form of reworking are provided as follows (numbers refer to requirements in the 07/03/97 letter):

3. When the mains under the North Fork of Rilda Creek are no longer needed, the operator must ensure long term stability for the riparian zone/alluvial hydrologic system through backstowing, backfilling, grouting, or other means utilizing best available technology at that time.
4. Appropriate measures, in consultation with the BLM and the Surface Management Agency (SMA), must be taken to locate and prevent dewatering of the Mill Fork Fault system. Where the fault system is penetrated, permanent seals must be installed.
5. Operator will not be permitted to subside under escarpments along the North side of Rilda Canyon unless consented to by the SMA.

Please contact Aaron Howe or Carter Reed at (801) 637-2817 if you have any questions relative to these clarifications.

Sincerely,

A handwritten signature in cursive script that reads "Aaron L. Howe".

for
JANETTE S. KAISER
Forest Supervisor

cc:
BLM, Price UT