



State of Utah

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt
Governor

Kathleen Clarke
Executive Director

Lowell P. Braxton
Division Director

1594 West North Temple, Suite 1210

PO Box 145801

Salt Lake City, Utah 84114-5801

801-538-5340

801-359-3940 (Fax)

801-538-7223 (TDD)

February 1, 2002

TO: Internal File

THRU: Jim D. Smith, Senior Reclamation Specialist/Team Lead *JDS*

FROM: David W. Darby, Senior Reclamation Specialist *DW*

RE: Mill Fork Lease Permit, Extension of the Deer Creek Mine, Energy West Mining, Inc. PacifiCorp, Deer Creek Mine, C/015/018 PM011

SUMMARY:

The Division received an application to include the Mill Fork Lease Extension on October 29, 2001. All proposed mining activity is underground, no surface activity is proposed for the Mill Fork Lease.

TECHNICAL ANALYSIS:

ENVIRONMENTAL RESOURCE INFORMATION

Regulatory Reference: Pub. L 95-87 Sections 507(b), 508(a), and 516(b); 30 CFR 783., et. al.

GENERAL

Regulatory Reference: 30 CFR 783.12; R645-301-411, -301-521, -301-721.

Analysis:

Drawing MFS 1839D shows several pre-mining resources. Several springs occur over the lease. The majority of springs appear above the Castlegate Sandstone. Little Bear Spring emanates east of the lease area. Its flow was studied by HGI/Water Technology and Research. Their conclusions identified the majority of flow emanating from the spring is recharge from the Mill Fork graben. Mining has been conducted in both the Deer Creek Mine and Beaver Creek #4 Mine that has intercepted the fault. The permittee plans to access the Mill Fork Lease by developing mains from the Deer Creek Mine to the Mill Fork Lease. The entries will cross the Mill Fork Fault. There may be some potential of groundwater interception along the fault. The permittee should address the potential of interception and identify any influence of mining on Little Bear Spring.

TECHNICAL MEMO

There has been some historic mining in the canyons east of the lease tract. No mining has occurred within the lease boundary.

There are two power lines on the lease. One line crosses a quarter section on the east side of the lease area. There is no planned mining beneath the line. The other line crosses the lease diagonally from south to west. It crosses over one panel. Two towers lie within the panel.

Wildlife and recreation are also resources that exist on the lease area.

Findings:

The applicant has submitted sufficient information in the MRP to address this section.

GEOLOGIC RESOURCE INFORMATION

Regulatory Reference: 30 CFR 784.22; R645-301-623, -301-724.

Analysis:

The permittee has submitted a local and regional description of the geology, including stratigraphy and structure. A list of boreholes was submitted in Appendix B. One representative lithologic log is presented in Appendix B. The permittee submitted a generalized cross-sectional map MFU 1829D showing a cross-section of strata from north to south and east to west, no detailed information is shown, like fence diagrams identifying changes in the stratigraphic column or location of groundwater bearing zones between drill sites. The drawing shows the Mill Fork graben cutting the Blackhawk Formation on the geologic map, but in the Star Point Sandstone and Mancos Shale in the Cross-section.

The Mill Fork Lease is delineated in East Mountain and extends between Huntington Canyon to Joe's Valley. It will be an extension of the Deer Creek Mine, owned by Energy West. All activities in the lease will be underground. Coal extraction will take place in the Hiawatha (lower) and Blind Canyon (upper) coal seams. The extracted coal will be transported through mains to the Deer Creek Mine surface facilities.

The permittee describes monitoring for acid and toxic forming materials. Extensive monitoring has been conducted. Appendix C is referenced, however only information from the Rock Canyon coal seam shows analyses of roof, coal and floor. There is no information for the Hiawatha Coal Seam and no information directly from the lease area if boreholes were drilled. There is only partial data for Pyritic Sulfer and no information on Alkalinity.

Findings:

The permittee has not submitted sufficient information to determine this section complete.

R645-301-724. The permittee should submit acid and toxic forming information for the Hiawatha Coal seam and provide detail of any information collected from boreholes on the lease area. Data should be sufficient to identify the potential for acid and toxic contamination. If no borehole information is available for the lease area a waiver for collecting this information can be submitted by the operator is there if evidence that no potential for contamination or degradation of surface and ground-water resources exists.

R645-301-724. The permittee needs to provide detailed information showing drill hole information, including drill logs and the geologic relationship between drill holes, including faults and groundwater sources.

OPERATION PLAN

MINING OPERATIONS AND FACILITIES

Regulatory Reference: 30 CFR 784.2, 784.11; R645-301-231, -301-526, -301-528.

Analysis:

Type and Method of Mining Operations

The permittee has supplied information identifying the type of mining and methods to be employed to mine the Blind Canyon and Hiawatha coal seams. Room and pillar mining will be conducted in developing the mains and end gates. Longwall mining will be conducted in panels trending east-west. Structure contours are identified in drawings MFU 1828D, Hiawatha coal seam and MFU 1827D, Blind Canyon coal seam. Overburden isopach maps show there is relatively a high amount of cover over mined areas. The overburden isopachs are shown in drawings MFU 1825D MFU, Hiawatha coal seam and 1824D, Blind Canyon seam. The shallowest overburden over the mined area is near Crandall Canyon Creek at about 500 feet (Blind Canyon seam). It increases over the lease to over 2600 feet. The interburden ranges between 70 feet to 140 feet and is shown in drawing MFU 1826D.

TECHNICAL MEMO

Findings:

The applicant has submitted sufficient information to address the geologic section of the regulations.

COAL RECOVERY

Regulatory Reference: 30 CFR 817.59; R645-301-522.

Analysis:

The permittee describes coal recovery on p. 5-7. The permittee has planned mining operations to maximize the utilization and conservation of the coal. Both coal seams are minable over 50% of the Mill Fork lease.

The permittee will employ continuous and longwall mining methods. The mine layout for this lease is designed to mine large multi-seam areas. Mine layout for the Mill Fork Lease is illustrated on Maps MFU1840D and MFU1841D. In developing the maximum recovery plans, the permittee had to considered the amount of overlying strata above the coal seams and the amount of interburden between seams. Regulatory restrictions on mining, such as escarpment protection, barriers and perennial streams buffer zones were also evaluated and incorporated into the PAP.

Findings:

The permittee has addressed the minimum regulatory requirements for this section.

RECOMMENDATION:

The permit extension is not recommended for approval. The permittee address the deficiencies listed above.