

TECHNICAL MEMORANDUM

Utah Coal Regulatory Program

March 22, 2005

TO: Internal File

THRU: D. Wayne Hedberg, Permit Supervisor

THRU: Joe Helfrich, Team Lead

FROM: Wayne H. Western, Environmental Scientist III Engineering and Bonding.

RE: South Crandall Lease Revision, Genwal Resources Inc., Crandall Canyon, C/015/0032, Task ID #2175

SUMMARY:

On September 16, 2003 the Division received an application from Genwal resources Inc. to modify their mining and reclamation plan to include the new South Crandall Federal Lease (UTU-78953). On December 2, 2003 the Division sent the Technical Analysis document to the applicant as represented by Mr. Gary Gray. The Division received a response to the deficiencies enumerated in the Technical Analysis document on January 30, 2004. On March 18, 2004 the Division sent the Technical Analysis document to the applicant as represented by Mr. Gary Gray. The Division received a response to the deficiencies enumerated in the Technical Analysis document on April 7, 2004. On May 24, 2004 the Division sent a Technical Analysis deficiency response to Genwal Resources. On June 14, 2004 Genwal Resources submitted a response to the deficiencies enumerated in the 5/4/04 technical analysis. On October 5, 2004 The Division staff met with the Forest Service and BLM to discuss the applicants response to the Forest's Service comments provided to the Division on March 4, 2004. On November 4, 2004 the Division sent Genwal Resources a revised TA that included the Forest Service's comments. On Decembr 6, 2004 Genwal Resources submitted a response to the TA. The lease application encompasses 920 acres and can be located on the Rilda Canyon 7.5 minute quadrangle map in The Manti-La Sal National Forest. There is no surface disturbance associated with this lease acquisition. The applicant is currently developing portals adjacent to the existing surface facilities in order to gain access to the coal lease. This memo will include a review of the engineering sections of the submittal dated December 6, 2004.

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On March 9, 2005, the Division revised a response to the deficiencies of the December 5, 2004 submittal.

TECHNICAL ANALYSIS:

ENVIRONMENTAL RESOURCE INFORMATION

MAPS, PLANS, AND CROSS SECTIONS OF RESOURCE INFORMATION

Regulatory Reference: 30 CFR 783.24, 783.25; R645-301-323, -301-411, -301-521, -301-622, -301-722, -301-731.

Analysis:

Affected Area Boundary Maps

The Permittee shows the proposed affected area boundaries on Plate 5-2 (BC). The information is adequate for the Division to determine the affected area boundaries.

Existing Structures and Facilities Maps

The Permittee did not need to update the existing structures and facilities maps. Plate 1-1, Crandall Canyon Mine Lease Map, shows that the area is mountainous and that only structure that exists is a U.S.F.S. trail. Plate 4-3, Crandall Canyon Mine Oil & Gas Development, does not show any activity in the South Crandall lease area.

Existing Surface Configuration Maps

The Permittee shows the existing surface configuration on several maps including Plate 1-1, Crandall Canyon Mine Lease Map.

Mine Workings Maps

No known mine workings exist within the South Crandall lease.

Findings:

The information provided is adequate to meet the requirements of this section of the regulations.

OPERATION PLAN

COAL RECOVERY

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

Analysis:

The Division reviewed the mine plan and the BLM approval letter for the resource recovery and protection plan (R2P2). The Division found that the mine plan would maximize economic coal recovery.

The BLM placed the following restrictions:

- Full extraction mining is not authorized in panels BC-4 and HIA-5 in areas with less than 600' of overburden until it is determined that these areas can be mined without adverse impacts to the Little Bear Canyon municipal watershed.
- Mining will not be permitted until the water treatment plant is in operation for those areas identified in lease stipulation 17. At present no mining is scheduled for those areas.

The regional BLM recommended that the R2P2 be approved. A letter from the BLM is in Appendix 5-24. The Division agrees with the BLM's preliminary evaluation of the mining plan with respect to maximizing economic coal recovery.

Findings:

The information in this section of the MRP is adequate to meet the minimum requirements of the regulations.

SUBSIDENCE CONTROL PLAN

Regulatory Reference: 30 CFR 784.20, 817.121, 817.122; R645-301-521, -301-525, -301-724.

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Analysis:

Renewable Resources Survey

The renewable resources in the area consist of grazing, timber and water. The Permittee stated in the South Crandall amendment that some of the renewable resources in the area were surface and groundwater. The Permittee has designed the mine plan to prevent damage to those resources particularly Little Bear Spring.

Subsidence Control Plan

The updated subsidence plan includes the following information about the South Crandall lease:

- In most of the South Crandall lease, the Hiawatha and Blind Canyon seams will be extracted by longwall methods. Those areas where full extraction is not permitted by the lease agreement are: 1) Areas under Little Bear Stream with less than 600 feet of overburden, 2) areas within 1,000 feet of the southeast corner of the lease in order to protect the Mill Fork Graben and 3) areas within 1,000 feet of the southern boundary of the lease in order to protect the possible water-bearing fracture system.
- Map 5-2 BC and Map5-2H have been updated to show the area of maximum possible subsidence.
- The subsidence monitoring program for the South Crandall Lease is similar to that of the other areas. The area will have initial survey points established. The area will be aerial surveyed and surface inspections will be done.
- Effects of planned subsidence are anticipated to be a lowering of the surface and temporary tensional fractures at the margins of the subsidence areas.
- Mitigation for any disruption to the Little Bear Spring will be done through construction of a water treatment plant, which will provide replacement water for the spring.

The Permittee gave adequate information about the main power line for the site and the potential effects of subsidence because:

- The Permittee showed the location of the main power line on Plate 5-2 (BC) and Plate 5-2 (H). Those maps have a yellow line labeled as a 12.5 kV powerline.
- The Permittee updated Map 5-5 to show the areas where subsidence has and is expected to occur.
- The Permittee discussed the anticipated effects that subsidence would have on the main power lines. On page 5-26b the Permittee states that they talked with Utah Power & Light officials. The officials were quoted as saying that the risks are minimal.

- The Permittee committed to notify the Forest Service in the event of any damage to the powerline so that proper fire prevention measures can be implemented. The line is equipped with ground fault protection that will automatically and instantly de-energize the line in the vent of any damage.

The Permittee stated that they will not do full extraction mining in areas with less than 600 feet of coal. The Permittee showed the areas with more than 600 feet of cover on Plate 5-2 (BC) and Plate 5-2 (H).

Due to lease stipulations, the Permittee made the following commitment.

“According to this plan full extraction mining (i.e. longwall mining) is not authorized in panels BC-4 and HIA-5 in areas with less than 600’ overburden unless it can be determined that these areas can be mined without adverse impacts to the Little Bear Canyon municipal watershed.

The Permittee must include a map that shows the area of projected subsidence at a scale of 1:12,000 or larger. Plate 5-5 shows the workings that will subside but does not show the area of subsidence. The Permittee needs to show the subsidence zone within the angle of draw.

Performance Standards For Subsidence Control

The Permittee is required to meet all performance standards for subsidence controls.

Notification

The Permittee is required to notify the water conservancy district, and all surface owners 6 months before undermining an area. The Division will inspect the Permittee’s records to determine if notification was given.

Findings:

The information provided does not adequately meet the minimum requirements of the Operation Plan - Subsidence Control Plan section of the regulations. Prior to approval the following information must be provided in accordance with:

R645-301-525.110, The Permittee must include a map that shows the areas where subsidence is expected for the entire mine. Plate 5-5 does not show the entire subsidence zone rather only those mine workings where full extraction took place.

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RECOMMENDATIONS:

The Division should approve the amendment.

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