

TECHNICAL MEMORANDUM

Utah Coal Regulatory Program

April 26, 2004

TO: Internal File

THRU: Joe Helfrich, Team Lead

FROM: Wayne H. Western, Environmental Scientist III

RE: South Crandall Lease Amendment, Genwal Resources Inc., Crandall Canyon Mine, Permit C/015/0032, Task ID #1903

SUMMARY:

On September 16, 2003, the Division received an application for incorporating the federal lease UTU-78953, which is also known as the South Crandall Lease in the Crandall Canyon Lease.. The lease is south of the current mining operations. The lease is the only economic coal reserves that can be accessed from the Crandall Canyon Mine. The Division reviewed the amendment and found it deficient.

On April 7, 2004, the Division received the response to the deficiencies they sent out of the first review round. The Permittee satisfied most the deficiencies but they did not address a few items.

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TECHNICAL ANALYSIS:

ENVIRONMENTAL RESOURCE INFORMATION

PERMIT AREA

Regulatory Requirements: 30 CFR 783.12; R645-301-521.

Analysis:

The Permittee stated the legal description and acreage for the South Crandall lease (UTU-78953 in Chapters 1 and 5 of the MRP. The Permittee also included the acreages for the permit area according to property owner.

Findings:

The information in the amendment was adequate to meet the minimum requirements of this section of the regulations

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

In conversations between the Division and the Permittee, they stated that they do not plan to expand mining operations outside of the proposed permit boundary. Therefore, the proposed affected area boundaries did not change with this submittal.

Existing Structures and Facilities Maps

The Permittee did not update the existing structures and facilities maps. Plate 1-1, Crandall Canyon Mine Lease Map, showed 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 existing surface configuration was on several maps including Plate 1-1, Crandall Canyon Mine Lease Map. The existing surface configuration maps concentrated on the disturbed area. Since the disturbed area did not change the Permittee did not need to update those maps.

Mine Workings Maps

In conversations with the Permittee, they told the Division that no mine works exist within the South Crandall lease.

Permit Area Boundary Maps

The proposed permit boundary was shown on Plate 1-1, Crandall Canyon Mine Lease Map.

Surface and Subsurface Manmade Features Maps

With the exception of a trail, no surface no subsurface manmade features were shown on any maps of the South Crandall lease.

Findings:

The information provided in the application was considered adequate to meet the minimum requirements of this section of the regulations.

OPERATION PLAN

MINING OPERATIONS AND FACILITIES

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Analysis:

The Permittee does not propose to build any new surface structures or facilities related to the development of the South Crandall lease.

Findings:

The information provided in the application was considered adequate to meet the minimum requirements of the regulations.

EXISTING STRUCTURES:

Regulatory Reference: 30 CFR 784.12; R645-301-526.

Analysis:

There are no existing structures within the South Crandall lease.

Findings:

The information in the South Crandall lease amendment was considered adequate to meet the minimum requirements of this section of the regulations.

RELOCATION OR USE OF PUBLIC ROADS

Regulatory Reference: 30 CFR 784.18; R645-301-521, -301-526.

Analysis:

There are no public roads in or near the South Crandall lease. Therefore, the Permittee cannot relocate or use a public road within the South Crandall lease area.

Findings:

The information provided in the amendment was adequate to meet the minimum requirements of this section of the regulations.

COAL RECOVERY

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

Analysis:

Appendix 5-24, Resource and Recovery Protection Plan Approval Letter, was not included in the amendment. The Division uses the R2P2 when they evaluate the coal recovery plan. In addition to the approval letter the Permittee needed to state in the amendment what they would be doing to maximize coal recovery.

The Permittee plans to mine both seams as shown on Plate 5-2H and Plate 5-2 BC. The Permittee had developed a mine plan, designed to maximize coal recovery.

Findings:

The information provided in the amendment was not considered adequate to meet the minimum requirements of this section of the regulations. Before, the Division can approve the amendment the Permittee must give the following information in accordance with:

R645-301-122, The Permittee will include a copy of the letter from the BLM about the approval of the R2P2, or provide other information about how they plan to achieve maximum economic recovery..

SUBSIDENCE CONTROL PLAN

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

Analysis:

Renewable Resources Survey

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

Subsidence Control Plan

The subsidence plan must include the following information about the South Crandall lease

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- State in the text and/or maps the type of mining that will occur and where, such as longwall or room and pillar. The Permittee stated in the text that they would mine both the Hiawatha and Blind Canyon seams with longwall equipment where possible. The Permittee will mine the no subsidence zones by room and pillar equipment. The Permittee showed the mine plan for both seams on Plate 5-2BC and 5-2H.
- Update the subsidence map (Plate 5-5) to show the area of maximum possible subsidence. The Permittee did not update Plate 5-5 (Subsidence Map) for the South Crandall Lease. The Division needs Plate 5-5 updated. The Permittee did update Plate 5-2BC and Plate 5-2H. Therefore, the information in the MRP is not consistent and a reader would not know which map was correct.
- Describe the updated subsidence-monitoring plan. The Permittee states that they showed the locations of additional control point on Plate 5-2. However, Plate 5-2BC and Plate 5-2H do not show the location of any subsidence control points. Instead, the Permittee showed the locations of the control points on Plate 5-5 Subsidence Map. The Permittee did not update Plate 5-5.
- Effects of planned subsidence. The Permittee stated that the maximum amount of planned subsidence is ten feet. The lease stipulations prohibit mining under less than 600 feet of cover and within 1,000 feet of Little Bear Spring or the recharge zone.
- The Permittee must state measure to be taken if subsidence adversely affects State-appropriated water supplies. The Permittee committed to build a water purification plant to mitigate any damages.
- The Permittee must conduct a ground survey of all subsided area no sooner than 6 months and no later than 12 months after they mine an area (panel) to determine if the surface has been disturbed. Note: aerial photographs usually do not have the resolution to show those features.
- State or cross reference the location of all State-appropriated water rights within the subsidence zone and show that copies of the report to the property owner, the water conservancy district, if any, where the mine is located.

Note: the Division added some new subsidence regulations that were not in affect when the original subsidence control plan was developed. Many of the subsidence deficiencies resulted from the addition of these regulations.

Performance Standards For Subsidence Control

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

Notification

The Permittee is required to notify the water conservancy district, if 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 in the South Crandall amendment is does not meet the minimum requirements of this section of the regulations. Before approval, the Permittee will give the Division the following information in accordance with:

R645-301-525.420, The Permittee must update Plate 5-5 to show the areas where planned subsidence will occur. Plate 5-5 is the subsidence map and must be updated to show the subsidence zone for the South Crandall Lease.

R645-301-525.440 and R645-301-525.490, The Permittee must update the subsidence-monitoring program. In the text, the Permittee stated that the new subsidence control points are shown on Plate 5-2. The Permittee did not show the location of the control points on that map. In the past, the Permittee showed the control points on Plate 5-5 Subsidence Map, which they did not updated.

R645-301-525.130, The Permittee must include a list of the quality and quantity of State-appropriated water within the subsidence zone. In addition, the Permittee must show that they provided copies of the subsidence survey to all property owners and water conservancy districts.

ROAD SYSTEMS AND OTHER TRANSPORTATION FACILITIES

Regulatory Reference: 30 CFR Sec. 784.24, 817.150, 817.151; R645-301-521, -301-527, -301-534, -301-732.

Analysis:

No new roads or other surface transportation facilities are proposed in this amendment.

Findings:

The information contained in the South Crandall lease is considered adequate to meet the minimum requirements of this section of the regulations.

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SPOIL AND WASTE MATERIALS

Regulatory Reference: 30 CFR Sec. 701.5, 784.19, 784.25, 817.71, 817.72, 817.73, 817.74, 817.81, 817.83, 817.84, 817.87, 817.89; R645-100-200, -301-210, -301-211, -301-212, -301-412, -301-512, -301-513, -301-514, -301-521, -301-526, -301-528, -301-535, -301-536, -301-542, -301-553, -301-745, -301-746, -301-747.

Analysis:

No changes to the spoil or waste materials disposal plan are mentioned in the South Crandall lease amendment.

Findings:

The information contained in the South Crandall lease is considered adequate to meet the minimum requirements of this section of the regulations.

MAPS, PLANS, AND CROSS SECTIONS OF MINING OPERATIONS

Regulatory Reference: 30 CFR Sec. 784.23; R645-301-512, -301-521, -301-542, -301-632, -301-731, -302-323.

Analysis:

Affected Area Maps

From conversations with the Permittee, they do not plan to expand mining operations outside of the proposed permit boundary. Therefore, the permit area is the same as the affected area. The permit boundary is shown on several maps including Plate 1-1.

Mining Facilities Maps

The Permittee will not construct any new surface facilities in connection with the South Crandall lease. Therefore, the mine facilities maps will not have to be changed.

Mine Workings Maps

The Permittee showed the location of the mine workings for the South Crandall lease on Plate 5-2H and Plate 5-2 BC.

Certification Requirements

The maps submitted by the Permittee that require certification for the South Crandall lease amendment have been certified by a registered professional engineer.

Findings:

The information contained in the South Crandall lease is considered adequate to meet the minimum requirements of this section of the regulations.

RECLAMATION PLAN

APPROXIMATE ORIGINAL CONTOUR RESTORATION

Regulatory Reference: 30 CFR Sec. 784.15, 785.16, 817.102, 817.107, 817.133; R645-301-234, -301-412, -301-413, -301-512, -301-531, -301-533, -301-553, -301-536, -301-542, -301-731, -301-732, -301-733, -301-764.

Analysis:

The backfilling and grading plan will not be affected by the addition of the South Crandall lease. Therefore, there will be no changes to the approximate original contour restoration.

Findings:

The information contained in the South Crandall lease is considered adequate to meet the minimum requirements of this section of the regulations.

BACKFILLING AND GRADING

Regulatory Reference: 30 CFR Sec. 785.15, 817.102, 817.107; R645-301-234, -301-537, -301-552, -301-553, -302-230, -302-231, -302-232, -302-233.

Analysis:

The backfilling and grading plan will not be affected by the addition of the South Crandall lease.

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Findings:

The information contained in the South Crandall lease is considered adequate to meet the minimum requirements of this section of the regulations.

MINE OPENINGS

Regulatory Reference: 30 CFR Sec. 817.13, 817.14, 817.15; R645-301-513, -301-529, -301-551, -301-631, -301-748, -301-765, -301-748.

Analysis:

No new mine openings will be constructed because of the addition of the South Crandall lease.

Findings:

The information contained in the South Crandall lease is considered adequate to meet the minimum requirements of this section of the regulations.

MAPS, PLANS, AND CROSS SECTIONS OF RECLAMATION OPERATIONS

Regulatory Reference: 30 CFR Sec. 784.23; R645-301-323, -301-512, -301-521, -301-542, -301-632, -301-731.

Analysis:

Affected Area Boundary Maps

There are no changes to the Affected Area Boundary maps.

Bonded Area Map

There are no changes to the bonded (disturbed) area maps.

Reclamation Backfilling And Grading Maps

There are no changes to the backfilling and grading plans. Therefore, there is no change to the backfilling and grading maps.

Reclamation Facilities Maps

There are no changes to reclamation facilities.

Final Surface Configuration Maps

There are no changes to the final surface configuration in the bonded areas.

Certification Requirements.

A registered professional engineer certified all reclamation maps that needed certification.

Findings:

The information contained in the South Crandall lease is considered adequate to meet the minimum requirements of this section of the regulations.

BONDING AND INSURANCE REQUIREMENTS

Regulatory Reference: 30 CFR Sec. 800; R645-301-800, et seq.

Analysis:

General

No new surface facilities will be built or any new disturbed areas will be added because of the South Crandall lease addition. Therefore, there will be no change to the bond. The Permittee does not have to change the insurance coverage because of the addition of the South Crandall lease.

Findings:

The information contained in the South Crandall lease is considered adequate to meet the minimum requirements of this section of the regulations.

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RECOMMENDATIONS:

The Division should deny the amendment until all the noted deficiencies have been adequately addressed.

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