0013

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)

October 30, 2000

Chuck Semborski, Environmental Supervisor
Energy West Mining Company
P.O. Box 310
Huntington, Utah 84528

Re: Miller Canyon Phase III Bond Release, Energy West Mining Company, Cottonwood/Wilberg Mine, ~~ACT/015/019~~-BR99D Outgoing File

Dear Mr. Semborski:

The Division has completed a review of your December 23, 1999, submittal for Phase III bond release at the Miller Canyon portals. There are several deficiencies discussed in the enclosed technical analysis that need to be resolved before we can issue Phase III bond release. Foremost, because the site was just reclaimed in 1999, it has not met the requirements for the extended responsibility period.

The site may meet the requirements for Phase I bond release, but certain deficiencies would need to be addressed in the mining and reclamation plan and in the bond release application before Phase I bond release could be given. These deficiencies are discussed in the sections of the technical analysis under the headings "Administrative Information," "Backfilling and Grading," "Hydrologic Information," and "Maps, Plans and Cross Sections of Reclamation Operations."

Please respond to these deficiencies by January 25, 2001, or the Division will assume you have decided not to pursue Phase I bond release and will return your application. If you have any questions regarding the requirements of the technical analysis, please call Paul Baker at 801-538-5261, or me at 801-538-5258.

Sincerely,

Susan M. White

Susan M. White
Acting Permit Supervisor

pbb/sm
Enclosure:
cc: Price Field Office
O:\015019.CWW\FINAL\defBR99D.wpd

State of Utah

Utah Oil Gas and Mining

Coal Regulatory Program

Cottonwood Wilberg Mine
Miller Canyon Phase III Bond Release
ACT/015/019-BR99D
Technical Analysis
October 19, 2000

TABLE OF CONTENTS

INTRODUCTION

PacifiCorp is proposing Phase III bond release for the area of the Miller Canyon portals. The Division received the proposal December 23, 1999. These are remote portals that were constructed in 1981, and the only disturbances are the portals and immediately adjacent areas. Total disturbance is 0.02 acres.

PacifiCorp is not seeking bond reduction; rather, they want to be released from reclamation liability. Before the Division can give Phase III bond release, there are several issues that need to be addressed, such as the period of extended responsibility for successful vegetation, certain hydrology issues, and others. The applicant may have met the backfilling and grading requirements for Phase I bond release, but certain deficiencies in the mining and reclamation plan and in the application would need to be corrected before Phase I bond release could be given.

INTRODUCTION

SUMMARY OF OUTSTANDING DEFICIENCIES

The Technical Analysis regarding the proposed permit changes is not complete at this time, pending submittal of additional information by the Permittee and further review by the Division, to address outstanding deficiencies in the proposal. A summary of those outstanding deficiencies is provided below. Additional comments, concerns, and deficiencies may also be found withing the analysis and finding make in the Draft Technical Analysis which have not been presented in this summary. Upon finalization of this review, any outstanding deficiencies will be evaluated for compliance with the regulatory requirements. Such deficiencies may be conditioned to the requirements of the permit issued by the Division, result in denial of the proposed permit changes, or may result in other executive or enforcement actions as deemed necessary by the Division at that time to achieve compliance with the Utah Coal Regulatory Program.

Accordingly, the permittee must address those deficiencies as found within this Draft Technical Analysis and provide the following, prior to approval, in accordance with the requirements of:

R645-301-542.200 and R645-301-512.100, The permittee must give the Division certified maps that show the disturbed area boundaries, the final surface configuration (topography) and cross sections of the reclaimed area. 14

R645-301-553.120, The permittee must state how highwalls at the Miller Canyon site have been eliminated. 8

R645-301-553.130, The permittee must show that the reclaimed slopes will have a static safety factor of 1.3 or higher. 9

R645-301-553.300, The permittee must address how the coal seams that were exposed during mining were covered. 9

R645-301-356, The applicant needs to submit information showing the vegetation meets the requirements of this regulation and the general requirements in R645-301-353. . . . 13

R645-301-357, Because it was possible to topsoil and revegetate the site, the period of extended responsibility for successful revegetation applies. This period begins after the last augmented seeding, irrigation or other work and continues for either five or ten years. Since the seeding and other reclamation work were done just more than one year ago, the applicant has not met this requirement. 13

R645-301-341.250, The applicant needs to propose a revegetation success standard for the Miller Canyon portals. 13

R645-301-761, 1) It is unclear if the Miller Canyon portal seals will prevent flow from

discharging if the sections of the mine fill up after closure. 2) The operator should summarize the cause of changes in flow from the Miller Canyon portals and state the reasons for fluctuation. 3) The operator should describe how flow patterns will be affected once the Trail Mountain tunnel is sealed. 4) The applicant should discuss when the UPDES monitoring site was moved from the portal location to the mouth of Miller Canyon. 11

R645-301-880.100, Copies of the letters of notification and the affidavit of publication need to be made part of the bond release application. 5

ADMINISTRATIVE INFORMATION

Regulatory Reference: R645-301-880.100, R645-301-880-200

Analysis:

The applicant is required to submit the bond release application during a season when it is possible to evaluate the success of reclamation. The Division received the application December 23, 1999, which is not normally a time when it is possible to easily view or gain access to the site. However, since the Division has delayed analyzing the bond release application, the timing of the submittal is not critical.

The applicant did not originally submit copies of letters notifying land owners and governments agencies of the bond release application, but the Division received copies of these letters on April 19, 2000. Copies of these letters should be made a part of the bond release application.

On May 19, 2000, the Division received a copy of the affidavit of publication for the public notice that was published in the *Emery County Progress* April 25 through May 16, 2000. This also needs to be made part of the application.

Findings:

Information in the proposal is not adequate to meet the requirements of this section of the regulations. Prior to final approval, the applicant must supply the following information in accordance with:

R645-301-880.100, Copies of the letters of notification and the affidavit of publication need to be made part of the bond release application.

ADMINISTRATIVE INFORMATION

RECLAMATION PLAN

POSTMINING LAND USES

Regulatory Reference: 30 CFR Sec. 784.15, 784.200, 785.16, 817.133; R645-301-412, -301-413, -301-414, -302-270, -302-271, -302-272, -302-273, -302-274, -302-275.

Analysis:

The mining and reclamation plan identifies wildlife habitat as the postmining land use. The area was graded and seeded in a manner compatible with this use.

Findings:

Information in the proposal is adequate to meet the requirements of this section of the regulations.

APPROXIMATE ORIGINAL CONTOUR RESTORATION

Regulatory Reference: 30 CFR Sec. 784.15, 785.16, 817.102, 817.107, 817.133; R645-301-234, -301-270, -301-271, -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 permittee met the general requirements for restoring the site to the approximate original contours. The reclaimed topography blends into the surrounding topography. French drains allow any water that will drain from the mine to mimic natural seeps in the area. Photographs in Appendix XXII show the operational and reclaimed phases of the Miller Canyon site. The photographs show that the reclaimed site is similar in grade to the surrounding area.

Findings:

The requirements of this section of the regulations are considered adequate in regard to Phase I and Phase II bond release.

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 general engineering requirements for backfilling and grading are that the site is restored to the approximate original contours, eliminate all highwalls, spoil piles and depressions; achieve a postmining long term static safety factor of 1.3. In the December 23, 1999, submittal the permittee does not address highwall elimination and slope stability.

From information in the Appendix XXII, the Division found that the site had been restored to the approximate original contours. See the AOC section for more details.

The permittee does not specifically address the highwall elimination. However, the photographs in Appendix XXII show that the portals have been backfilled. From the photographs the highwalls appear to be completely backfilled. However, since the disturbed area was not mark and natural cliffs exist next to the portal the Division cannot make a finding at this time. Before Phase I bond release can be given the Permittee must show that all highwalls were eliminated.

The area should not have had any spoil piles or large depressions since surface activities were limited to the construction of the breakouts. The photographs in Appendix XXII do not show any spoil piles or large depressions. In the December 23, 1999, submittal the permittee states that all non coal and coal waste was removed from the site.

The permittee did not address slope stability. The permittee needs to show that the slopes have a minimum static safety factor of 1.3.

The permittee did not address how the exposed coal seams were covered. The photographs in Appendix XXII show that coal seams near the portals were covered and that there are coal seams in the area are naturally exposed. Since the disturbed area boundaries are not shown, the Division cannot make a finding about the coal seam covering plan.

Findings:

Information provided in the proposed amendment is not considered adequate to meet the requirement of this section. Prior to approval, the permittee must provide the following in accordance with:

R645-301-553.120, The permittee must state how highwalls at the Miller Canyon site have been eliminated.

R645-301-553.130, The permittee must show that the reclaimed slopes will have a static safety factor of 1.3 or higher.

R645-301-553.300, The permittee must address how the coal seams that were exposed during mining were covered.

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:

The Miller Canyon portals were sealed in 1981 according to a plan approved by MSHA and the Division. Seals were placed in the portals and then the entrances backfilled. Due to natural cliff failure the backfill did not extend to the seal. A cross section of the site showing how the portals were sealed is Appendix XXII.

Findings:

The requirements of this section of the regulations are considered adequate in regard to Phase I and Phase II bond release.

TOPSOIL AND SUBSOIL

Regulatory Reference: 30 CFR Sec. 817.22; R645-301-240.

Analysis:

The mining and reclamation plan gives no information about whether topsoil was salvaged form the portal areas, but the cover letter with the bond release application says topsoil was not salvaged because of the limited amount of material available. To reclaim the site, topsoil was brought by helicopter from a topsoil pile near the mouth of Miller Canyon. After the soil was spread on the portals, it was roughened as much as possible with hand tools, and rocks and tree branches were placed on top to decrease erosion, to make the sites blend better with surrounding areas, and to provide microhabitats for plants and small wildlife.

Table 8 of Appendix XX clearly indicates that there is very little precipitation in June and July. The best time to conduct this reclamation would have been in September or October, when precipitation increases. The reclamation and seeding were conducted June 22-26, 1999. If the seeding fails, it should be repeated; however, based on a site visit October 12, 2000, by two Division biologists and a representative of the applicant, it does not appear reseeding will be necessary.

Findings:

Information in the proposal is adequate to meet the requirements of this section of the regulations.

ROAD SYSTEMS AND OTHER TRANSPORTATION FACILITIES

Regulatory Reference: 30 CFR Sec. 701.5, 784.24, 817.150, 817.151; R645-100-200, -301-513, -301-521, -301-527, -301-534, -301-537, -301-732.

Analysis:

No roads are associated with the Miller Canyon portals.

Findings:

The requirements of this section of the regulations are considered adequate in regard to Phase I and Phase II bond release.

HYDROLOGIC INFORMATION

Regulatory Reference: 30 CFR Sec. 784.14, 784.29, 817.41, 817.42, 817.43, 817.45, 817.49, 817.56, 817.57; R645-301-512, -301-513, -301-514, -301-515, -301-532, -301-533, -301-542, -301-723, -301-724, -301-725, -301-726, -301-728, -301-729, -301-731, -301-733, -301-742, -301-743, -301-750, -301-751, -301-760, -301-761.

Analysis:

Ground-water Monitoring

There is no information or evidence that the portal area discharged flows prior to mining or prior to development of the breakouts. Although flows appear to be low at this point in time, a question exists whether the portals can transmit flow after bond release. Representatives of the Division and the applicant spoke on October 13, 2000. The applicant's representative said that flow coming from the portals is unlikely, because the portals are sealed. He also said that the flow currently coming from the portal is caused by seepage from sandstone channels in the facies above the mine. There is seepage in many areas at the same stratigraphic level. Map HS-3 shows the mapped channel sands. There is a high potential that the seeps existed prior to mining.

The Trail Mountain tunnel, consisting of the belt and roadway portal, are lower in elevation and dip than the Miller Canyon portals according to information on HM-3. This being the case, water filling the mine voids would flow from this portal first if sections of the mine were filled and not sealed. It is unclear at this point how the Trail Mountain tunnel will be sealed or what function it will take at

mine closure, also if this portal will prevent water from backing up against the Miller Canyon seals.

Surface-water Monitoring

The combined disturbed area for the portals is 0.02 acres. The amount of disturbed runoff and sediment yield is very small. The reclaimed area was pocked to retain any runoff and control erosion. It was also gouged, seeded, and mulched. In a site visit October 12, 2000, two Division representatives saw some signs of erosion, caused primarily by runoff from uphill areas, but it appears vegetation is becoming established and that the rocks and other surface treatments are effective.

Gravity Discharges

The three Miller Canyon portals were temporarily sealed in 1984 following the Wilberg Mine fire and permanently sealed in 1989. A pipe was installed in the seal of the eastern (#1) portal and extended at least 500 feet down the canyon to facilitate the collection of water samples. There was initially almost no discharge, with only five sporadic discharges, ranging from 4 to 25 gallons per minute (gpm), measured between October 1986 and November 1988.

Water started flowing consistently beginning in April 1989, when discharge jumped to 70 gpm. The highest discharge was 78 gpm in August 1989, after which flow-volume trended downward. There were some high flows in the spring of 1991, flow-volumes decreased significantly in 1994, and there has been no reported discharge since July 1996. In May 1999 it was discovered that the pipe had been pinched off when the portal opening caved and that water was flowing from the seals, over the rock ledge, and to the canyon floor, where it dissipates within a few hundred feet: Flow from portal #1 was estimated at 3 gpm..

It is unknown how long the pipe was pinched off and what effect this had on the accuracy of flow measurements. Photos taken in June 1999 during backfilling of the portals show water seeping from the top of the Starpoint Sandstone ledge just below the portals: French drains were installed in 1999 in the base of the fill to prevent slope failure due to saturation. (The water-sampling pipe was also removed at that time, and the UPDES monitoring point is now in the stream bed of Miller Canyon near the confluence with Cottonwood Creek.)

Water Quality Standards and Effluent Limitations

The applicant has conformed to UPDES water quality standards.

Findings:

R645-301-761, 1) It is unclear if the Miller Canyon portal seals will prevent flow from discharging if the sections of the mine fill up after closure. 2) The operator should summarize the cause of changes in flow from the Miller Canyon portals and state the reasons for fluctuation. 3) The operator should describe how flow patterns will be affected once the Trail Mountain tunnel is sealed. 4) The applicant should

discuss when the UPDES monitoring site was moved from the portal location to the mouth of Miller Canyon.

REVEGETATION

Regulatory Reference: 30 CFR Sec. 785.18, 817.111, 817.113, 817.114, 817.116; R645-301-244, -301-353, -301-354, -301-355, -301-356, -302-280, -302-281, -302-282, -302-283, -302-284.

Analysis:

Revegetation methods

In 1999, the applicant proposed a specific plan for reclaiming the portals in Miller Canyon. Before this, the approved mining and reclamation only said these portals would be sealed from inside the mine. There was no other information about what reclamation methods would be used. The plan does *not* say the portal areas will not be revegetated.

Appendix XXII of the current mining and reclamation plan contains information about the reclamation work that was done on the Miller Canyon portals in 1999. The portals were permanently sealed in 1987. The work done in 1999 included establishing a water discharge point in portal No. 1, backfilling with rock, bringing in soil material by helicopter, spreading this material and soil from adjacent areas by hand, incorporating mulch, seeding, and covering the areas with straw mulch and netting. Rocks and tree branches were also brought in by helicopter to help anchor the netting and to make the sites blend as well as possible with adjacent areas.

The work the applicant did to restore the area to a natural appearance is commendable, and in 2000, the Board of Oil, Gas and Mining gave an Earth Day Award for this reclamation work.

Revegetation success standards

According to Appendix XXII, the postmining land use in the area of the portals is a wildlife habitat. The requirements of R645-301-356 for this use are that the vegetation is judged on the basis of tree and shrub stocking and vegetative ground cover. Specific tree and shrub stocking density requirements are determined by the Division in consultation with appropriate wildlife management agencies.

The applicant submitted no information showing whether the site meets these criteria or the general requirement standards in R645-301-353. Appendix A of the "Vegetation Information Guidelines" contains standards for success, statistically valid sampling techniques for measuring success, and approved methods that must be used to determine whether revegetation has been successful. In addition, the mining and reclamation plan contains detailed information about what sampling and statistical techniques would be used. The applicant has submitted none of this information.

Regulation R645-301-357 requires a period of extended responsibility for successful revegetation

after the last augmented seeding, irrigation, or other work. This period is five years for areas with more than 26 inches of annual precipitation and ten years for areas with less than 26 inches of precipitation. It is assumed that the period for the Miller Canyon portals is ten years.

The Division has allowed final bond release after less than five or ten years in situations where revegetation is not required. In 1998, the Division gave final bond release for the Channel Canyon breakout portals of the Cottonwood Wilberg Mine. These portals were also in a remote location, but they were on a vertical cliff face. The applicant sealed the breakouts and painted the seals black. Because they were on a cliff face, topsoiling and revegetation was impossible, so it was not necessary to apply the requirements of R645-301-357. The Office of Surface Mining, Reclamation and Enforcement (OSM) concurred with this conclusion.

Although the Miller Canyon portals are in a remote location and they are difficult to reach, applying topsoil and revegetation techniques were possible. Therefore, the requirements of R645-301-357 apply. The Division should not consider final bond release until 2009.

The current mining and reclamation plan contains no information about revegetation success for this area. The Division's "Vegetation Information Guidelines" indicate it is not necessary to establish a reference area success standard for areas where the disturbance is less than one acre, but there still needs to be a standard. The Division suggests the applicant propose to measure vegetation cover over the entire disturbed area and compare this with measurements taken on adjacent areas. Because big game are likely to use little or no forage from these areas, a woody plant density success standard of 0 is appropriate.

Findings:

Information in the application is not adequate to meet the requirements of this section of the regulations. Prior to final approval, the applicant must supply the following in accordance with:

R645-301-356, The applicant needs to submit information showing the vegetation meets the requirements of this regulation and the general requirements in R645-301-353.

R645-301-357, Because it was possible to topsoil and revegetate the site, the period of extended responsibility for successful revegetation applies. This period begins after the last augmented seeding, irrigation or other work and continues for either five or ten years. Since the seeding and other reclamation work were done just more than one year ago, the applicant has not met this requirement.

R645-301-341.250, The applicant needs to propose a revegetation success standard for the Miller Canyon portals.

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

The applicant has supplied the required maps and information to analyze the Miller Canyon portal site. Map HC-3 and Appendix XXII provide the documentation to describe the portal site, extent, reclamation activities and surface configuration or the portal area .

Bonded area map

The permittee did not give the Division any bonded (disturbed area) maps for the Miller Canyon area.

Reclamation backfilling and grading maps

The permittee did not give the Division any backfilling or grading maps in the bond release package. In Appendix XXII, the permittee included a general cross section of the reclaimed portals. The cross section was **not** certified by a professional engineer and give only conceptual information.

Final surface configuration maps

The permittee did not include any final surface configuration (topographic) maps in the bond release package.

Findings:

Information provided in the proposed amendment is not considered adequate to meet the requirement of this section. Prior to approval, the permittee must provide the following in accordance with:

R645-301-542.200 and R645-301-512.100, The permittee must give the Division certified maps that show the disturbed area boundaries, the final surface configuration (topography) and cross sections of the reclaimed area.

BONDING AND INSURANCE REQUIREMENTS

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

Analysis:

Determination of bond amount

The permittee does not seek any bond reduction for the Miller Canyon portals. Since no bond reduction is sought, the Division will not recalculate the bond at this time.

Findings:

The requirements of this section of the regulations are considered adequate in regard to Phase I and Phase II bond release.

sm
O:\015019.CWW\FINAL\TA\TA_BR99D2.wpd.wpd