



State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

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February 16, 2001

TO: ~~Internal File~~

THRU: Jim D. Smith, Team Lead JDS

FROM: Wayne H. Western, Senior Reclamation Specialist WHW

RE: Cottonwood/Wilberg Fan Portal, Phase I Bond Release, PacifiCorp,
Cottonwood/Wilberg Mine, ~~0019~~-BR00D-1

SUMMARY:

On July 6, 2000, the Division received the permittee request for Phase I bond release at the Cottonwood Fan Portal. The main concerns are with the exposed coal seams and the retention of the access road by the Johnson Mine portals. On December 14, 2000, the permittee submitted responses to the deficiencies.

RECLAMATION PLAN

GENERAL REQUIREMENTS

Regulatory Reference: PL 95-87 Sec. 515 and 516; 30 CFR Sec. 784.13, 784.14, 784.15, 784.16, 784.17, 784.18, 784.19, 784.20, 784.21, 784.22, 784.23, 784.24, 784.25, 784.26; R645-301-231, -301-233, -301-322, -301-323, -301-331, -301-333, -301-341, -301-342, -301-411, -301-412, -301-422, -301-512, -301-513, -301-521, -301-522, -301-525, -301-526, -301-527, -301-528, -301-529, -301-531, -301-533, -301-534, -301-536, -301-537, -301-542, -301-623, -301-624, -301-625, -301-626, -301-631, -301-632, -301-731, -301-723, -301-724, -301-725, -301-726, -301-728, -301-729, -301-731, -301-732, -301-733, -301-746, -301-764, -301-830.

Analysis:

In the copy of the draft notice that is scheduled to be published in the Emery County Progress the permittee states the following:

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- The said area, located in E1/2 of Section 25, Township 17 South, Range 6 East, has met the regulations of the R645 Utah Coal Rules in regards to Phase I bond release (R645-301-880.300)
- A surety bond is filed with the Division of Oil, Gas and Mining in the amount of \$2,071,098.00, and is payable to the State of Utah, Division of Oil, Gas and Mining (DOG M), and the Office of Surface Mining Reclamation and Enforcement (OSM). PacifiCorp requests that the fractional bond liability amount for the Cottonwood Fan Portal area be reduced 60% or %58,194.00 to comply with the R645-301-880.300 regulation. Total surety bond held for this area will be reduced to \$38,796.00

The information in the newspaper add is sufficient for the public to decide the location of the bond release area.

Findings:

The requirements of this section of the regulations are considered adequate in regard to the proposed bond release.

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 requirements for approximate original contour restoration are couched in terms of backfilling and grading requirements. Those requirements include the following:

- Minimize off-site effects
- Achieve a final surface configuration that closely resembles the general surface configuration of the land before mining
- Provide a subsurface foundation for a vegetative cover capable of stabilizing the surface from erosion
- Support the postmining land use

Off-site effects usually involve hydrologic issues. A full analysis of the hydrologic requirements will not be done in this section. If the permittee meets the general hydrologic requirements then the Division usually considers that the off-site impacts will be minimized. The one hydrologic issue discussed in the AOC requirements is that the surface configurations blend into and complement the drainage pattern of the surrounding terrain.

The Division found that the reclaimed surface blends into and complements the drainage patterns of the surrounding terrain because:

- Few established flow ways exist in the surrounding area. Therefore, few flow ways were created in the area.
- Most of the water flows across the surface which is similar to what happens in the surrounding area.

The reclaimed surface must closely resemble the general surface configuration of the land before mining. This requirement does not have specific standards that must be met. The Division makes this determination by using the judgement of its staff members. The staff has reviewed the postmining landscape and found that it resembles the surrounding terrain.

The Division usually considers the requirements that the subsurface foundation can support vegetative and is capable of stabilizing the surface from erosion are met if the reclamation plan meets the revegetation requirements. The ability for the reclaimed site to support the postmining land use is discussed in other sections of this TA.

Some information on how the permittee reclaimed the area to meet the approximate original contour requirements is not clear and concise. Prior to approval the permittee must resolve the following deficiencies:

- The copies of Plate 5-7 that the Division received on Dec. 14, 2000 are not identical. One plate shows the existing ground superimposed on the reclaimed surface while the other map does not show the superimposed surface.
- The locations of the reclamation cross sections on Plate 5-7 are not shown on Plate 5-1.
- The term existing ground line is not defined on Plate 5-7. The permittee needs to state if the existing ground line is the premining or operational surface.

TECHNICAL MEMO

Findings:

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

R645-301-121.200 and R645-301-542.300, The permittee must give the Division the following: 1) identical copies of Plate 5-7, 2) define the term existing ground on Plate 5-7 (does the term existing the ground mean the premining or the operational surface?) and 3) show the location of the cross section on Plate 5-7 on Plate 5-1.

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 Division found that the permittee met the AOC requirements for the Cottonwood Fan Portal area. Those findings are in the AOC section of this memo.

During the field visit conducted on August 24, 2000, the Division found exposed coal rider seams in the Cottonwood Fan Portal area. The Division and the permittee discussed the issue, but did not make any conclusions.

On August 25, 2000, the Division's staff discussed the coal seam issue. The Division is concerned that the coal seams or high carbon content shale beds could consist of combustible materials or the materials could be acid- or toxic-forming.

The permittee needs to test the material before the Division can make a finding. If the material is combustible or acid- toxic-forming then the permittee must cover the material.

In the Dec. 14, 2000, submittal the permittee states the following:

During the excavation process, the Hiawatha coal seam was exposed at the Cottonwood Fan Portal to determine seam characteristics and to gain engineering data for foundation analysis (referred to as Terrace 1.) Backfill and grading during the reclamation process completely covered the exposed coal seam. Above the Hiawatha coal seam, several carbonaceous sequences were also exposed. PacifiCorp conducted sampling to determine if the exposed carbonaceous layers were either acid or toxic forming materials. Results of the sampling indicate that the two sites sampled, refer to Map 5-5 soils sites CFP0200 and CFP0400, are not

considered acid or toxic forming based upon the criteria outlined in the Division (refer to R645-301-200 Soils: Appendix D.) In addition, PacifiCorp analyzed the samples to determine if the combustible nature of the material. Results of the testing indicate that the BTU's of the two samples range from 3,800 to 4,900 and would not be considered combustible.

The permittee did not show the location of the coal seams on the cross sections as requested. That information is needed for the Division to make a finding that all coal seams have been properly backfilled.

The permittee states that no other coal seams exist within the area. During the field inspection on August 24, 2000 the Division's staff noted several outcrops that appeared to have coal. In the Dec. 14, 2000, submittal the permittee said that those outcrops contained carbonaceous materials not coal. The Division needs to know what methods were used to determine that the material was rock and not coal. In addition the Division needs to know what testing standards were used to determine that material with BTU's ranging from 3,800 to 4,900 would not be combustible.

Findings:

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

R645-301-553.300, The permittee must show that all coal seams, acid- and toxic-forming materials, and combustible materials exposed during the explorations have been properly covered. Specifically the permittee must show 1) the location of all coal seams on the cross sections so the Division can make a finding that all coal seams have been properly backfilled, 2) the testing standard used to determine that material with BTU's ranging from 3,800 to 4,900 would not be combustible and 3) what methods were used to determine that the material in the carbonaceous layers is not coal.

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:

There are no mine openings on the site.

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Findings:

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

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:

Reclamation

The as-builts for the reclaimed CRP access road are incorrect. See the approximate original contour section of this TA for details.

Retention

The part of the CRP access road that is by the old Johnson Mine portals was not reclaimed because reclamation would cover the historic portals. The permittee needs to show that retention of that section of the CRP access road is allowed as part of the post mining land use.

The reasons why the permittee must show that the part of the CRP access road can be retained as part of the post mining land use are in the engineering section of Volume 11 of the MRP are as follows:

- Since the road was used as part of the Cottonwood Fan Portal exploration project the permittee is required to reclaim the road even though the area was originally disturbed prior to the enactment of SMCRA. A post SMCRA site is any site where coal mining was conducted on or after August 3, 1977.
- R645-301-542.600 requires that the permittee reclaim all roads not to be left as part of the postmining land use. Unless the permittee shows that the segment of the road is needed to preserve the historic site the road must be reclaimed.

The permittee did not respond to this deficiency in the Dec. 14, 2000 submittal.

Findings:

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

R645-301-542.600, The permittee must show that the section of the CFP access road by the Johnson Mine portals must be retained to preserve the historic Johnson Mine portals. The permittee did not respond to this deficiency in the Dec. 14, 2000 submittal.

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:

Discharges into an underground mine

No underground mine openings exist in the Cottonwood Fan Portal Phase 1 reclamation site. Therefore, water does not discharge into underground mine openings at this site. However, seal portals do exist in the Johnson mine site.

Gravity discharges.

There are no underground mine openings in the Cottonwood Fan Portal Phase 1 reclamation site. Therefore, water does not discharge from underground mine openings at this site. However, seal portals do exist in the Johnson mine site.

Impoundments

Two sediment basins will remain on the site until erosion is control by vegetation.

Findings:

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

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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 maps

Plate 5-5, Drawing KS1710D Cottonwood Fan Portal Surface Facilities Map Phase I Reclamation, shows the area that the permittee request Phase I bond release. The permittee shows the areas that have been interim revegetation, final vegetation and final reclamation. The drainage controls, French drains, have also been shown.

Plate 5-5 shows the areas for which Phase I bond release has been sought. The undisturbed Johnson Mine site is clearly shown as an undisturbed island.

On Plate 5-5 the permittee lists the dates for some reclamation activities. The terraces were backfilled on November 1998 and the revegetated area had final reclamation done in 1981.

A bonded area map

The Division considers the affected area map to be equivalent to the bonded area map for the Cottonwood Fan Portal.

Reclamation backfilling and grading maps

The deficiencies with the backfilling and grading maps were discussed in the backfilling section of this TA.

Reclamation facilities maps

The facilities associated with the Cottonwood Fan Portal area are shown on Plate 5-5. Those facilities include ditches and sediment basins.

Final surface configuration maps

The final surface configuration is shown on Plate 5-5 and the cross section shown on Plate 5-5 and Plate 5-7 show the final surface configuration. Problems with Plate 5-7 were discussed in the backfilling and grading section.

Reclamation monitoring and sampling location maps

The permittee did not show any monitoring or sampling locations on the maps.

Findings:

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

BONDING AND INSURANCE REQUIREMENTS

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

Analysis:

Determination of bond amount

The permittee states that they want to reduce the bond amount for the area from \$58,194 to \$38,796.

Findings:

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

RECOMMENDATIONS:

The Division should deny the request for bond release until the deficiencies are resolved.