

# State of Utah



## Utah Oil Gas and Mining

### Coal Regulatory Program

Cottonwood - Wilberg Mine  
Cottonwood Fan Portal Phase I Bond Release  
ACT/015/019-BR00D  
Technical Analysis  
August 31, 2000

File in:

- Confidential
- Shelf
- Expandable

Refer to Record No. 0011 Date 09262000  
In CI 0150017 2000 Outgoing  
For additional information

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**INTRODUCTION**

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## **INTRODUCTION**

An application for Phase I Bond Release for the Cottonwood Fan Portal area was received July 6, 2000. The Division has reviewed the application and found several deficiencies, so the information in the application is not considered adequate to meet the minimum requirements of the Coal Mining Rules. The Permittee should make the requisite changes to the Mining and Reclamation Plan, then resubmit the bond release application.

The Cottonwood Fan Portal site was initially disturbed under an exploration permit in anticipation of constructing a fan portal; however, construction of the fan portal was abandoned when extensive burnt coal was found. Cast-off material below the site was reclaimed in 1981. Reclamation of the Cottonwood Fan Portal area was initiated in November of 1998. The reclaimed cast-off material below the site was not redisturbed in 1998.

A historical abandoned mine (Old Johnson Mine) is located within the Cottonwood Fan Portal reclamation area. Historical remnants included an old wagon road and two sealed portals. The old wagon road was upgraded and utilized for hauling topsoil during reclamation of the fan portal area in 1998 and afterwards was reclaimed, leaving an access trail to the two historical Johnson portals.

**INTRODUCTION**

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SUMMARY OF OUTSTANDING DEFICIENCIES

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 that 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:

- R645-300-142 and -143, and R645-301-120, The Phase 1 bond release application package needs to include applicable amended MRP sections explaining activities as they actually occurred during reclamation of the Cottonwood fan portal site. Amended sections need to explain variations to the approved MRP and justify why the approved procedures were changed during actual reclamation for the following: (1) Leaving an access trail to the Old Johnson Mine historical portals. (2) Using a 1,000 cubic yards in excess of the approved volume of subsoil and topsoil. (3) Inappropriately using soil as fill up to 10 feet in thickness. (4) Using both the subsoil and topsoil interchangeably rather than sequentially with verbal approval granted by the Division. (5) Failure to use mid-sized rock and boulder placement along the front face of benches to help control slope sloughing. . . . . 12
R645-301-241 and R645-301-251, Approximately 6,321 cubic yards of soil remains in the subsoil stockpile. Amend the reclamation plan to include redistribution plans for soils remaining in the subsoil stockpile. . . . . 13
R645-301-521.163, The permittee must outline the undisturbed Johnson Mine site on the disturbed area boundary maps. . . . . 16
R645-301-542.300, The permittee must give the Division accurate cross sections for the Cottonwood Fan Portal access road. Those cross sections must show that the cut slopes have been reclaimed. . . . . 9
R645-301-542.600, The permittee must show that the section of the Cottonwood Fan Portal access road by the Johnson Mine portals must be retained to preserve the historic Johnson Mine portals. . . . . 13

**SUMMARY OF OUTSTANDING DEFICIENCIES**

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- R645-301-553.300**, The permittee must show that all coal seams, acid- or toxic-forming materials, and combustible materials exposed during the explorations have been properly covered. If the permittee claims that no exposed coal seams exist in the Cottonwood Fan Portal area then they must show that the exposed material is noncombustible and non acid- or toxic-forming. .... 10
- R645-301-880.120**, The permittee did not state the correct legal description in the draft public notice for the proposed bond release area. On Plate 5-5 the permittee shows the corner section for Section 25 and the boundaries for the Cottonwood Fan Portal facilities. That facility is in the NE1/4 and SE1/4 of Section 25 not just the NE1/4 as stated in the newspaper advisement. The permittee should describe the area to the nearest quarter-quarter section. .... 7
- R645-301-880.120**, The permittee must state in the newspaper notice the amount of bond release that they are seeking. In the cover letter the permittee states that they want \$52,682.40 in the bond released. .... 8
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## ENVIRONMENTAL RESOURCE INFORMATION

### SOILS RESOURCE INFORMATION

Regulatory Reference: 30 CFR Sec. 783.21, 817.200(c); R645-301-220, -301-411.

#### Analysis:

##### Soil Characterization

1997 Soil Samples Cottonwood Fan Portal Area. During June 1997, six soil samples were taken from the topsoil (CTW0697), subsoil (CTW0597), 1981 re-vegetated slope (CTW0797 & 0897), bench-level terrace 1 (CTW0997), and a composite sample for terraces 2, 3 and 4A (CTW1097). Sample results are contained in Attachment D, Soil Sampling Analysis Report. Sample locations are presented on Plate 5-5, Drawing KS1710D. As reported by the laboratory results, sample materials meet the criteria of the Division's guidelines for topsoil and overburden<sup>1</sup> and show no toxic or acid forming characteristics. Soil pH values range from 7.6 to 7.9 which are indicative of calcareous conditions. In fact, CaCO<sub>3</sub> values range from 33.7% to 56.2%. EC values range from 0.5 mmhos/cm to 1.51 mmhos/cm which are well below the saline soil limit of 4 mmhos/cm. Based on the SAR values (0.82 to 3.31), no sodium problem is present. Adjusted SAR could not be calculated because the data sets did not contain bicarbonate values. Soil textures are predominantly loam, sandy loam and silt loam with the silty loam textures found on the stripped terraces. Negligible amounts of Selenium and Boron were analyzed in the samples.

#### Findings:

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

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<sup>1</sup>Leatherwood, J., and Duce, D., 1988. Guidelines for Management of Topsoil and Overburden for Underground and Surface Coal Mining. State of Utah Department of Natural Resources, Division of Oil, Gas and Mining.

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Revised: August 31, 2000

**ENVIRONMENTAL RESOURCE INFORMATION**

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**RECLAMATION PLAN**

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## 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:

- The said area, located in NE1/4 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 (DOGM), 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% as read in R645-301-880.300.

On Plate 5-5 the permittee shows the corner section for Section 25 and the boundaries for the Cottonwood Fan Portal facilities. That facility is in the NE1/4 and SE1/4 of Section 25, not just the NE1/4 as stated in the newspaper advisement. The permittee must give the proper legal description and describe the area to the nearest quarter-quarter section.

The permittee did not state in the draft newspaper notice the dollar amount of the bond release being sought. In the cover letter the permittee states they want \$52,682.40 of the bond released.

#### 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:

**R645-301-880.120**, The permittee did not state the correct legal description in the draft public notice for the proposed bond release area. On Plate 5-5 the permittee shows the corner section for Section 25 and the boundaries for the Cottonwood Fan Portal facilities. That facility is in the NE1/4 and SE1/4 of Section 25 not just the NE1/4 as stated in the newspaper advisement. The permittee should describe the area to the nearest quarter-quarter section.

**R645-301-880.120**, The permittee must state in the newspaper notice the amount of bond release that they are seeking. In the cover letter the permittee states that they want \$52,682.40 in the bond released.

## 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 part of the Cottonwood Fan Portal 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 Cottonwood Fan Portal access road is allowed as part of the post mining land use. See the Road Systems and Other Transportation Facilities section of this TA for details.

### Findings:

Information provided in the proposed amendment is not considered adequate to meet the requirements of this section. See the Road Systems and Other Transportation Facilities section of this TA for details.

## 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 information on how the permittee reclaimed the area to meet the approximate original contour requirements is not clear and concise. The main problem is that the as-built cross sections for the Cottonwood Fan Portal access road to the Johnson Mine portals do not correspond to the cross sections in the approved plan.

On August 24, 2000, the Division and the permittee visited the site to compare the as-built drawings with the approved drawing. The as-built drawings showed that large cut slopes were left on the Cottonwood Fan Portal access road. However, during the field inspection the Division found that the cut slopes had been backfilled and regraded.

Chuck Semborski offered the following explanation for why the approved as-builts did not correspond to the as-builts in the bond release package:

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**RECLAMATION PLAN**

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The surveyor who originally did the cross sections had retired. When the original cross sections were made the surveyor started at the beginning of the center line of the Cottonwood Fan Portal access road and took cross sections as he went up. The cross sections were perpendicular to the road. The new surveyor could not duplicate the cross sections because the road had been reclaimed. So he drew the cross sections perpendicular to the main center line for the reclaimed area. However, the cross sections did not line up with the existing topography and cut slopes appeared on the cross sections.

The Division needs to have as-built drawing that show the actual field conditions. Therefore, the permittee must submit revised as-builts that show that the cut slopes along the Cottonwood Fan Portal access road have been reclaimed.

During the field inspection on August 24, 2000, the Division found that the site had been restored to the approximate original contours. The topography of the Cottonwood Fan Portals site blended into the surrounding topography and the reclaimed drainages complemented the natural drainages.

**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:

**R645-301-542.300**, The permittee must give the Division accurate cross sections for the Cottonwood Fan Portal access road. Those cross sections must show that the cut slopes have been reclaimed.

**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- or toxic-forming then the permittee must cover the material.

**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- or toxic-forming materials, and combustible materials exposed during the explorations have been properly covered. If the permittee claims that no exposed coal seams exist in the Cottonwood Fan Portal area then they must show that the exposed material is noncombustible and non acid- or toxic-forming.

**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.

**Findings:**

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

**TOPSOIL AND SUBSOIL**

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

**Analysis:**

The five-acre Cottonwood Fan Portal site was initially disturbed under an exploration permit in anticipation of constructing a major portal facility. However, construction of an actual fan portal installation was initially postponed, and finally abandoned, after mining emphasis and needs changed shifting mining emphasis to the South Cottonwood lease. Final reclamation of the Cottonwood fan portal area was initiated and completed in November of 1998. When the fan portal site was initially disturbed, the cast-off material below the site was contemporaneously reclaimed in 1981. This area was not re-disturbed in the 1998 reclamation activities, but remained as final reclamation.

A historical abandoned mine (Old Johnson Mine) is located within the Cottonwood fan portal reclamation area. Historical remnants include an old wagon road and two sealed portals. The old wagon

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**RECLAMATION PLAN**

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road was upgraded and utilized for hauling topsoil during reclamation of the fan portal area in 1998. Afterwards, the roadway was reclaimed, leaving an access trail to the two old historical portals. The MRP contained reclamation plans to completely backfill and remove all traces of this old roadway.

### **Soil Redistribution**

The application letter describes that backfilling and grading essentially consisted of placing topsoil on each of the five terraces and the access road to the Old Johnson Mine site. The topsoil was taken from both the subsoil and topsoil stockpiles, with complete removal of the topsoil stockpile. As-built topography is provided on Plates 5-3, Plate 5-5, and Plate 5-7. Plate 5-5, Drawing KS1710D, shows and depicts where topsoil and subsoil will be used in the reclamation of the terraces of the Cottonwood Fan Portal and the Old Johnson Mine Site road. Plates 3-3 and Plate 5-7 illustrate cross-sectional views for soil placement on the reclaimed terraces and the Old Johnson portal access road.

Soil distribution quantities for backfilling and reclaiming each of the 5 terraces are provided on Plate 5-3, sheet 2 of 2, Cottonwood Fan Portal Reclamation Slope Cross Sections. A total of 3,121.7 cubic yards of topsoil was used for terraces 1, 2, 3, 4 and 4a. Plate 5-7 shows cross-sectional views for reclaiming the Old Johnson access road. A quantity table on Plate 5-7 shows that 351.2 cubic yards of soil was used to backfill this area. A grand total of 3,472.9 cubic yards of soil was actually used to reclaim the fan portal area. This amount of actual soil used is approximately 1,000 cubic yards of soil greater than projected in the approved MRP. The approved MRP states that 1,030 cubic yards of topsoil and 1,550 cubic yards of subsoil for a grand total of 2,580 cubic yards would be needed for reclaiming the Cottonwood fan portal area.

### **Soil Stabilization and Erosion Control**

The Phase 1 bond release application letter does not state anything about rock placement and it is assumed that rock placement occurred as outlined in the approved MRP. The approved MRP states the following:

- Soil will be compacted in lifts while rock and boulders will be positioned along the front face of the benches to help control slope sloughing. In addition, the approved MRP states that mid-sized rocks and boulders will be placed on the prepared slopes and nested into the soil. Rock from the stockpiles will be distributed and placed on the slope to help provide slope containment and natural esthetic appearance.

The Phase 1 bond release application letter states that subsoil and topsoil were not placed sequentially because both soil types were similar in physical and chemical properties. In addition, soil replacement depths vary between 0 and approximately 10 feet because of the slope gradient. The approved MRP states the following:

- Slopes will be between 1½:1 to 2:1. A minimum 1.0 foot topsoil placement will occur on the bench area beyond the fill slope. Six inches of topsoil will be placed on the 1½:1 slopes. Subsoil placement is shown on Plate 5-3. Subsoil is used to backfill against the cut slopes and highwall with subsoil placement depth varying depending on location.

The reclaimed slopes were deep gouged at time of soil replacement to protect against erosion. The approved MRP states the following:

- An erosion control blanket will be used to cover all slopes and benches that receive redistributed soils.

#### **Slope Beneath Fan Portal Area**

The contemporaneously reclaimed slope at the base of the fan portal area remained as final reclamation. This slope was not disturbed during the reclamation of the Cottonwood Fan Portal terraces and will therefore remain as final reclamation.

#### **Remaining Subsoil Topsoil Piles**

Both the topsoil and subsoil piles are shown with soil volumes calculated using baseline cross-section stations as shown on the MRP Plate 5-4. The salvaged topsoil pile contained approximately 1,061 cubic yards while the subsoil pile contained approximately 8,733 cubic yards of soil. Based on these volumes, approximately 6,321 cubic yards of soil remains in the subsoil stockpile after reclaiming the Cottonwood fan portal area.

Accordingly, the topsoil stockpile area should have been graded to approximate original contour. Likewise, the disturbed portion of the subsoil stockpile should have been contoured and revegetated. Verbal discussion with Dennis Oakley included using the remaining subsoil to reclaim the Trail Mountain Mine.

#### **Findings:**

Information provided 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:

**R645-300-142 and -143, and R645-301-120,** The Phase 1 bond release application package needs to include applicable amended MRP sections explaining activities as they actually occurred during reclamation of the Cottonwood fan portal site. Amended sections need to explain variations to the approved MRP and justify why the approved procedures were changed during actual reclamation for the following: (1) Leaving an access trail to the Old Johnson Mine historical portals. (2) Using a 1,000 cubic yards in excess of the approved volume of subsoil and topsoil. (3) Inappropriately using soil as fill up to 10 feet in thickness. (4) Using both the subsoil and topsoil interchangeably rather than sequentially with verbal approval granted by the Division. (5) Failure to use mid-sized rock and boulder placement along the front face of benches to help control slope sloughing.

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**RECLAMATION PLAN**

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**R645-301-241 and R645-301-251**, Approximately 6,321 cubic yards of soil remains in the subsoil stockpile. Amend the reclamation plan to include redistribution plans for soils remaining in the subsoil stockpile.

## **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 Cottonwood Fan Portal access road are incorrect. See the approximate original contour section of this TA for details.

#### *Retention*

The part of the Cottonwood Fan Portal 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 Cottonwood Fan Portal access road is allowed as part of the post mining land use.

The reasons why the permittee must show that the part of the Cottonwood Fan Portal 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:

- Because 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.

### **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 Cottonwood Fan Portal access road by the Johnson Mine portals must be retained to preserve the historic Johnson Mine portals.

## 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:

#### **Acid and Toxic-forming Materials**

See the discussion in the Backfilling and Grading Section above.

#### **Discharges Into an Underground Mine**

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

#### **Gravity discharges**

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

#### **Diversions**

No modification or reclamation has been done to the two diversion ditches, the undisturbed drainage ditch (UD3) across the top of the site and the disturbed drainage ditch (DD4) through the area reclaimed in 1981.

#### **Sediment Control Measures**

Plate 5-5 in the MRP shows a silt fence (also described on Soils - page 6) at the top of the area revegetated in 1981. The revised Plate 5-5 no longer shows this silt fence, but this is in agreement with Plate 3-13, the Hydrological Map, which does not show this silt fence.

Hydroseed and hydromulch or blanket mulch were placed on slopes and benches where soils were redistributed, as committed to in the MRP.

#### **Impoundments**

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

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**RECLAMATION PLAN**

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**Findings:**

This section of the proposed Phase I Bond Release is considered adequate in regard to the requirements of the regulations.

**STABILIZATION OF SURFACE AREAS**

Regulatory Reference: 30 CFR Sec. 817.95; R645-301-244.

**Analysis:**

See the discussion under Soil Stabilization and Erosion Control in the Topsoil and Subsoil Section.

**Findings:**

Information provided in the application is not adequate to meet the requirements of this section of the regulations. See the Topsoil and Subsoil Section.

**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**

Plate 5-5, Drawing KS1710D Cottonwood Fan Portal Surface Facilities Map Phase I Reclamation, shows the area for which the permittee requests Phase I Bond Release. The permittee shows the areas that have 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. However, the plate does not show the Johnson Mine site as an undisturbed island in the Cottonwood Fan Portal reclamation site. Because the Johnson Mine site is shown to be within the reclaimed area, the reader cannot tell that part of the Johnson Mine site was not disturbed by activities associated with the Cottonwood Fan Portal project. Therefore, any islands of undisturbed land must be outlined using the disturbed area boundary line.

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.

### **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 sections shown on Plate 5-3 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:**

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:

**R645-301-521.163**, The permittee must outline the undisturbed Johnson Mine site on the disturbed area boundary maps.

## **BONDING AND INSURANCE REQUIREMENTS**

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

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**RECLAMATION PLAN**

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**Analysis:****Determination of Bond Amount**

The permittee does not state in the draft newspaper notice how much money they want released in the bond release package. In the cover letter the permittee wants a 60% reduction in the bond amount, a reduction of \$52,682.40.

**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:

**R645-301-880.120**, The permittee must state in the newspaper notice the amount of bond release that they are seeking. In the cover letter the permittee states that they want \$52,682.40 in the bond released.

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State of Utah  
 Department of Natural Resources  
 Division of Oil, Gas and Mining  
 Coal Regulatory Program Directive

Directive Number: Tech - 006
Effective Date: September 26, 2000
Supersedes: N/A

Subject: **Requirements for Phased Bond Release**

Approved: \_\_\_\_\_ Lowell P. Braxton, Director, Division of Oil, Gas, and Mining

**ABSTRACT**

*The objective of this policy is to provide information on the general requirements for bond release in accordance with rules and regulations pertaining to coal mining and reclamation operations in the state of Utah.*

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## 1. Purpose

The purpose of this directive is to clearly present the requirements to request bond release under the Utah Coal Regulatory Program.

## 2. Regulatory Basis

R645-301-800.  
30 CFR 800.40

## 3. Definitions

There are no additional definitions specific to this directive.

## 4. Policy

To petition for bond release the permittee must file an application with the Division. The Division will return the bond release application if all elements required by this directive are not provided.

The information supplied in the applicant's plan and bond release package must be adequate to allow the Division to conduct the following evaluations:

1. The degree of difficulty in completing any remaining reclamation and any reclamation that may be needed to bring the site to the premining land use should the proposed post mining land use fail.
2. Whether pollution of surface and subsurface water is occurring and the probability of future occurrence of such pollution, as well as the estimated cost of abating such pollution.

The applicant may obtain conditioned bond release approval, but actual bond release will not occur until all remaining transfers, lease conditions and other legal transactions are completed.

## 5. Procedure

### PRIOR TO BOND RELEASE REQUEST

Prior to request for bond release, the reclamation plan and modifications to the reclamation plan, including

changes in the post mining land use and those changes that result during reclamation, must be approved by the Division and incorporated into the Mining and Reclamation Plan (MRP). This includes the following:

1. Provide certification that reclamation was done according to the designs in the approved plan, or provide as-built plans including designs, reports and drawings of the reclamation work accomplished and any modifications, amendments, or changes to the reclamation plan as a result of the reclamation.
2. Provide the maintenance agreements for structures approved to remain for the postmining land use. The maintenance agreements must state that the facilities will be properly managed and maintained by the land owner following bond release.
3. Where the postmining land use is changed from the premining land use in accordance with R645-301-412 through R645-301-414, the MRP must address all applicable performance standards for bond release and the criteria by which successful reclamation for the post mining land use will be judged.

### REQUEST FOR BOND RELEASE

#### I. GENERAL ADMINISTRATIVE REQUIREMENTS -

A request for bond release must contain or reference the following administrative information:

- A. NOTARIZED SIGNATURE - A request will contain the notarized signature of a responsible official of the permittee, certifying that the information contained in the request is true and correct to the best of the official's information and belief.
- B. NOTIFICATION LETTERS - Copies of letters of notification must be submitted to the Division. Notice Letters shall, at a minimum, contain the same information as submitted in the Newspaper Advertisement (see part C below) and shall be sent by the permittee to all parties who have a valid interest in release of the bond. Notice Letters shall identify the intent to seek bond release, and shall be sent to the following:

1. Surface Owners

2. Subsurface Owners
3. Adjoining Property Owners
4. County Commissioners
5. Mayors
6. Local Planning Agencies
7. Municipal Authorities
8. Sewage and Water Treatment Authorities
9. Water Companies

Depending on land ownership and management, other agencies that may need to be notified include:

1. State Division of State History
2. State Division of Water Resources
3. State Department of Environmental Quality
4. State Division of Wildlife Resources
5. Federal Agencies (BLM, Forest Service, Natural Resources Conservation Service, Fish and Wildlife Service, Mine Safety and Health Administration, etc.)

C. NEWSPAPER ADVERTISEMENT - Newspaper advertisements should be approved by the Division PRIOR to publication to ensure completeness. A copy of a newspaper advertisement which is published at least once a week for four consecutive weeks in a newspaper of the locality of the mining operation shall be submitted to the Division within 30 days after the date of bond release application. The advertisement shall contain the following items:

1. The permit number, name of the permittee, and the permit approval date.
2. A description of the precise location of the land affected, both surface and coal.
3. The number of acres to be considered for release, both surface and coal.
4. The amount and type of bond the Division currently holds.
5. The amount of bond being sought for release.
6. A description of the type of reclamation work performed and the dates when the work was performed and completed.
7. A description of the results achieved in relation to the mining and reclamation plan (i.e. stability, restoration of drainages, vegetation establishment).

8. A statement indicating written comments, objections and requests for public hearings or informal conferences may be submitted to the Division of Oil, Gas and Mining.

9. The address of the Division of Oil, Gas and Mining.

10. The closing date for submission of such comments, etc. (At least 30 days AFTER the last publication date).

D. PERMIT CONDITIONS - Demonstrate outstanding permit conditions are satisfied.

## II. GENERAL TECHNICAL REQUIREMENTS

A. BOND RELEASE REQUEST (ALL PHASES) - A request for bond release must contain or reference the following technical information:

1. A legal description of the permit area.
2. Maps of a scale of 1"=500' or larger (e.g. 1"=50') clearly illustrating the boundaries of lands for which bond release is being requested. The maps shall:
  - a. Delineate all disturbed areas,
  - b. Show the reclamation dates and acreages of each reclaimed area,
  - c. Show the operation or reclamation status of each area, such as active; temporary cessation; or phase bond release, and,
  - d. Show areas proposed for bond release.
3. Notify the Division 3 months in advance of vegetation sampling for PHASE II and PHASE III Bond Release to confirm adequacy of sampling methodology and schedule sampling dates.
4. The specific reclamation treatments, areas, and work accomplished which is to be considered for bond release. Reference the pages or sections where postmining topography, drainage control, vegetation, intended land use, etc., are contained in the MRP.
5. A brief history of mining and reclamation activities indicating when mining operations began and ended and when earthwork and topsoil distribution began and ended.

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6. Dates of last seeding, rill and gully repair or other augmentative practices, and references to approval for the husbandry practices occurring during the period of extended responsibility.
    - b. Cross sections showing important topographic features including but not necessarily limited to, approximate original contour, roads, etc.,
    - c. Dates of backfilling and grading activities,
    - d. Dates of topsoil replacement,
    - e. Topsoil replacement depths.
  7. Remaining sediment control structures (ponds, silt fences, straw bales) and diversions to be removed and any release of refuse piles and ponds from MSHA requirements.
  8. A detailed schedule and cost estimate for the remaining reclamation work to be accomplished. The cost estimate shall include, but not be limited to, cost for remaining reclamation treatments; revegetation; diversion and sediment pond removal; access road removal; vegetative, water, and other monitoring requirements; surveys or studies to determine reclamation success; maintenance costs; and engineering and contingency costs and any reclamation that may be needed to bring the site to the premining land use should the proposed post mining land use fail.
  9. A summary of the current bond amount, total disturbed area acreage, and the acreage, locations, dates and amounts of bond released for PHASE I, PHASE II, and PHASE III reclamation.

4. Overburden chemical analyses results, and discussion on potential adverse affects on plant growth or water quality.
  5. Evaluation of topsoil or substitute soil including chemical and physical analyses and replacement depths (if included in this phase of bond release).
  6. Evaluation of subsoil including analyses and replacement depths (optional).
- C. PHASE II BOND RELEASE - Bond release for PHASE II may be considered only after the applicant demonstrates, and the Division is satisfied that all the reclamation requirements for PHASE I reclamation and vegetation and water quality requirements for PHASE II reclamation are met in accordance with the MRP.

For PHASE II bond release, the following information must be included in the bond release package or referenced in the MRP:

- B. PHASE I BOND RELEASE - Bond release for PHASE I may be considered only after the applicant demonstrates and the Division is satisfied that all the reclamation requirements for backfilling, regrading and drainage control measures for PHASE I are met. This phase may include topsoil replacement.

For PHASE I bond release, the following information must be included in the bond release package or referenced in the MRP:

1. All applicable information required in: BOND RELEASE REQUEST (ALL PHASES)
2. A map illustrating the "as-built" topography (refer to: PRIOR TO BOND RELEASE REQUEST)
3. Postmining Contour Topographic Maps (no smaller than 1"=500') showing detail including:
  - a. Postmining hydrologic features including restoration of natural drainages. It should also show ponds, diversions, wells and monitoring sites to be removed at PHASE II,
1. All information required in BOND RELEASE REQUEST (ALL PHASES) and completion of PHASE I bond release, including topsoil replacement requirements if not previously met.
2. A detailed analysis showing that vegetation meets the provisions in the approved reclamation plan, Utah Coal Rules and policy, and includes; sampling data on production (for cropland), cover, species composition; and sampling methodology. In the event the area under consideration includes prime farmlands, soil productivity yield must be demonstrated to be returned to the equivalent yield for non-mined land of the same soil type in the surrounding area under equivalent management practices, as determined from the soil survey performed pursuant to UCA 40-10-11(4) of the Act and R645-301-200 rules.
3. A demonstration that no part of the land considered for bond release is contributing suspended solids to streamflow or runoff outside the permit area in excess of the requirements set by

UCA 40-10-17(2)(j) of the Act and by R645-301-751 of the rules.

4. Where a sediment pond is to be retained as part of the postmining land use, a demonstration that the pond: 1) has a size and configuration adequate for its intended purposes, 2) the impounded water quality is suitable on a permanent basis for its intended use, 3) the pond has a sufficiently stable water level and is capable of supporting the intended use, 4) will meet applicable Utah and federal water quality standards after reclamation including demonstrating discharges from the impoundment will meet applicable effluent limitations and will not degrade the quality of receiving water below applicable Utah and federal water quality standards, and 5) the applicant must also show that there are provisions for sound future maintenance of the dam and a valid water right exists to legally allow the water to be put to beneficial use.

- D. PHASE III BOND RELEASE - Bond release for PHASE III may be considered only after the Division is satisfied that all the reclamation requirements for PHASE I and PHASE II reclamation are complete, the period specified for Operator responsibility in R645-301-357 is met, and all requirements of the Act and the permit are fully met for PHASE III.

For PHASE III bond release, the following information must be included in the bond release package or referenced in the MRP:

1. All information required in BOND RELEASE REQUEST (ALL PHASES).
2. A demonstration that the period specified for Operator responsibility in R645-301-357 is met,
3. A surface and groundwater quality and quantity impact analysis assessing hydrology data relative to the impact projections contained within the PHC and CHIA, impact trends and water quality demonstrated to be adequate for the post mining land use. The analysis must show that onsite impacts have been minimized and that offsite impacts have been prevented.
4. Detailed vegetation information, for the last two years of operator responsibility, including sampling data on woody plant densities,

productivity and cover, species composition, and sampling methodology. A detailed demonstration of how all the requirements of R645-301-350 have been met in accordance with the approved reclamation plan and as required by state regulation and policy.

5. A detailed demonstration that the postmining land use is achieved. This may include, but not be limited to, lease agreements, zoning information, contracts, and letters of commitment for industrial/commercial or residential uses; information on water availability and suitability for developed water resources; vegetation productivity; livestock use; wildlife counts; and recreational use.
6. Provide any contracts, agreements or summaries of agreements demonstrating the likelihood in achieving the post mining land use where a change in the postmining land use from the premining land use is approved by the Division.
7. Analysis of observed versus projected subsidence impacts, and a discussion of how any subsidence-caused material damage was prevented or mitigated. Information demonstrating that subsidence monuments have been removed.
8. Information demonstrating the requirements for all contracts and obligations have been met. This may include, as appropriate, transfer of water rights, well ownership, and grazing rights. Information demonstrating that all wells have been capped, cased, sealed or backfilled if not transferred.

#### BOND RELEASE INSPECTION

I. NOTIFICATION OF INSPECTION - Upon acceptance of a complete application, the Division shall within 30 days, or as soon thereafter as weather conditions permit, inspect and evaluate the reclamation. The Division will make the following notifications of the bond release inspection:

- A. The Division will give notice of the inspection to the surface owner, agent or lessee, who may participate with the Division in the bond release inspection. The Division may also arrange with the Operator to allow other persons with an interest in bond release access to the site for the purpose of gathering information relevant to bond release proceedings.

- B. The Division shall notify the Office of Surface Mining two weeks prior to the scheduled bond release inspection in accordance with OSMRE Directive REG-26 for concurrence with bond release on federal lands.

waived by all parties, which shall be made accessible to all parties. The Division shall also furnish all parties of the informal conference with a written finding of the Division based on the informal conference and the reasons for said finding.

II. INSPECTION AND EVALUATION - The Division will conduct the following evaluations during the bond release inspection:

- A. The degree of difficulty in completing any remaining reclamation and any reclamation that may be needed to bring the site to the premining land use should the proposed post mining land use fail.
- B. Whether pollution of surface and subsurface water is occurring and the probability of future occurrence of such pollution, as well as, the estimated cost of abating such pollution.
- C. If all other aspects relating to the requested bond release have been completed.

- C. The Division shall notify the operator, surety and persons who either filed objections in writing or who were party to the hearing proceeding, if any, of its decision to release or not release all or part of the performance bond. If no public hearing is held, the notification shall occur within 60 days from the filing of the bond release application, or, if a public hearing is held, within 30 days after the hearing has been held.

#### BOND RELEASE, DETERMINATION OF AMOUNT

The Division shall review, revise and approve the recalculated bond amount as necessary in order to determine the amount of bond to be retained and the amount of bond to be released. If it is determined that the current bond amount is inadequate and the remaining costs exceed what is currently held by the Division, the Division may require an increase to the bonding sum rather than a partial reduction of the dollar value of the bond. It may be possible to release partial liability on lands reclaimed without actually reducing the dollar sum.

PHASE I bond release shall in no case exceed 60% of the bond for the applicable area.

PHASE II bond release shall require that the Division retain that amount of bond for the revegetated area which would be sufficient to cover the cost of reestablishing revegetation if completed by a third party and for the period specified for operator responsibility in UCA 40-10-17(2)(t) of the Act for reestablishing revegetation.

PHASE III or final bond release shall not be made until such time as the period specified for Operator responsibility in R645-301-357 has been met (if applicable) and until all reclamation requirements of the Act and the permit are fully met.

#### PUBLIC HEARINGS AND WRITTEN OBJECTIONS

Written objections and requests for public hearings or informal conferences may be made by any person with a valid legal interest which might be adversely affected by release of the bond, or by any federal, state or local governmental agency which has jurisdiction by law, special expertise, or enforcement regarding any impact involved in the operation.

- A. If written objections are filed and a hearing is requested, the Division will inform all the interested parties of the time and place of the hearing and will hold a public hearing within 30 days after receipt of the request for the hearing. The date, time and location of the public hearing will be advertised by the Division in a newspaper of general circulation in the locality for two consecutive weeks. The public hearing will be held in the locality of the coal mining and reclamation operations from which bond release is sought, or at the location of the Division office, at the option of the objector.
- B. The Division may hold an informal conference as provided in UCA 40-10-13(2)(b) of the Act to resolve written objections. The Division shall make a record of the informal conference, unless

## 6. Delegated Responsibilities

N/A.

## 7. Reporting Requirements

Written analysis and findings will be prepared in draft prior to the bond release inspection. This draft shall include the preliminary findings responding to the information prepared in the petition for bond release. In the event the information in the petition for bond release is inadequate or incomplete for the Division to determine that phased bond release can be accomplished, the Division shall require that such deficiencies be corrected prior to conducting the bond release inspection.

The Division will prepare a field report regarding the bond release inspection. The report shall include any concerns raised by persons present at the time of the inspection. The field report will be used in conjunction with the information presented by the operator to evaluate the reclamation for the purpose of bond release.

Following the bond release inspection, the Division shall finalize the analysis and findings made in response to the petition for bond release. Comments or on-site conditions evaluated during the course of the bond release inspection shall be incorporated into these analyses and findings.

These analyses and findings will include the determination of the bond amount required following approval of phased bond release. A draft outline of the findings and analyses for all Phases of bond release can be found as Appendix A - Analysis and Findings for Bond Release. (BEING DEVELOPED)

Upon completion of the above Findings, the Division (Division Director) shall notify the Operator that the bond amount may be revised to the approved amount.

## 8. References

None.

## 9. Effect on other Documents

None.

## 10. Division Contact/Work Group

Bond Release Directive Team: Susan White, Wayne Western, Randall Harden, Pamela Grubaugh-Littig, and Paul Baker.

## 11. Key Words

Bond, Bond Release

## 12. Appendices

Appendix A - Analysis and Findings for Bond Release.

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