



GARY R. HERBERT
Governor

SPENCER J. COX
Lieutenant Governor

State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

January 18, 2018

Richard Parkins, General Manager
Fossil Rock Resources, LLC
225 North 5th Street, Suite 900
Grand Junction, Colorado 81501

Subject: Disturbed Area Boundary & Legal Description Change, Fossil Rock Resources, LLC, Fossil Rock Mine, C/015/0009, Task ID #5564

Dear Mr. Parkins:

The Division has reviewed your application. The Division has identified deficiencies that must be addressed before final approval can be granted. The deficiencies are listed as an attachment to this letter.

The deficiencies authors are identified so that your staff can communicate directly with that individual should questions arise. The plans as submitted are denied. Please resubmit the entire application by no later than February 16, 2018.

If you have any questions, please call me at (801) 538-5325.

Sincerely,

Daron R. Haddock
Coal Program Manager

DRH/sqs
O:\015009.FR\WG5564 LEGAL CHANGE\Deficiencies.doc



GARY R. HERBERT

Governor

SPENCER J. COX

Lieutenant Governor

State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER

Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA

Division Director

Technical Analysis and Findings

Utah Coal Regulatory Program

PID: C0150009
TaskID: 5564
Mine Name: FOSSIL ROCK MINE
Title: DISTURBED AREA BOUNDARY & LEGAL DESCRIPTION CHANGE

Summary

The Permittee submitted an amendment to Fossil Rock's MRP on December 4, 2017. The amendment updates the permit boundary to fully incorporate all surface disturbance associated with the Fossil Rock mine. The 2.86 acres being added to the permit area used to fall within Cottonwood mine's permit area. Cottonwood mine removed this acreage in the task 'Update Permit Area Boundary' with Task #5463. Adjusting the Fossil Rock permit boundary requires the Permittee to address the permanent discharge reporting to the mine's bypass culvert from an adjacent county culvert. This amendment also works to better organize the MRP.

kstorrrar

General Contents

Legal Description

Analysis:

The amendment meets the State of Utah R645 requirements for Legal Description.

The Legal Description of the Fossil Rock mine permit area and Right-of-Entry areas are broken down into tables and are supported with adequate narratives.

There is a 0.02 acre difference between Permit Acres and Right-of-Entry Acres. The table on p. 2 in Chapter Two shows 802.21 Permit Acres and 802.23 Right-of-Entry Acres. This difference is due to the waste rock site being permitted for 25.85 acres and this area falls within the 25.87 acres for the BLM Right-Of-Way. The amendment includes a supporting narrative and has cleared up all uncertainties between permitted and Right-of-Entry acres.

The Fee Property legal description is broken into two separate parcels of land and includes a reference to Appendix 4-2 or 'Exhibit A'. The two parcels include one parcel of land, 53.5 acres in size, west of Cottonwood Canyon Creek and one parcel of land, 2.86 acres, east of Cottonwood Canyon Creek. These two abutting legal descriptions fully contain one contiguous area. Most importantly the disturbed and bonded area fall within the permit boundary.

The references and narratives of the Fee Property have been cleared up and are consistent throughout Chapter 2. The ownership of the two parcels of fee property are shown on the Table on page 2 of Chapter 2. The owners for each specific parcel of land, the document type and date of execution are given in Appendix 4-2.

kstorrrar

Permit Application Format and Contents

Analysis:

The information provided meets the clear and concise requirements of R645-301-121.200.

Special Warranty Deed /Grant of Temporary Easement for parcel L3-0011-0003 executed in 2017 allows for expansion of the Fossil Rock mine site permit (disturbed) area to increase from 10.39 acres to 13.25 acres (Chap 2, p. 3 & 4 and Appendix 4-2, application e-pg 227). Parcel L3-0011-0003 is identified in the narrative on Chapter 2 page 4. The waste rock disturbed area is 15.82 acres. Thus the total Fossil Rock Mine disturbed area is 29.07 acres (Chap. 2, p. 3).

The Fossil Rock mine site is on fee land within the Manti La Sal National Forest (Plate 3-4). The mine portals were sealed in May 2001, at which time, the Permittee notified the Division of Temporary Cessation status (Section 3.3.6.4).

Plate 3-5 Post Mining Contour Map Reclamation Phase 1 shows contour intervals within the permit area and area immediately adjacent similar to those shown on Plate 3-7 Contemporaneous Reclamation

pburton

Permit Application Format and Contents

Analysis:

The amendment meets the State of Utah R645 requirements for Clear and Concise.

The page numbers in the Hydrology section have been corrected. The amendment used to have incorrect page numbers for Chapter 7. The narrative used to start on p. 1 and count up to p. 43. From p. 43 it then dropped back down to p. 25 and began counting up again for the remaining pages. This made the last five pages in Chapter 7 numerically out of sync with the chapter's preceding page numbers.

The amendment has added page numbers for Chapter 2. Prior to this, it was difficult to navigate and reference the document.

The amendment includes a figure titled, "ATLA/ACSM Land Title Survey PacifiCorp Trail MT. Mine". The figure includes a clear title describing the document and it has been re-scanned and incorporated so it is now legible.

kstorror

Reporting of Technical Data

Analysis:

Chapter 1, Section 1.2 Scope of Operation, Page 2 and 3 of the amendment meet the Coal Program Rules at R645-301-130 and 150.

Chapter 2, pages 2, 3, and 4 the acreages in this section have been updated under the heading of Right of Entry Information.

Chapter 3, Section 3.1, page 1, the following text has been retained as part of the history of the mine. Coal mining at the Trail Mountain Mine ceased as of March 15, 2001. In preparation of temporary cessation, all mining equipment including; production (longwall-311 and continuous miner), belt haulage and electrical were removed from the mine. Verification of equipment removal was conducted on April 6, 2001 with Bureau of Land Management (Steve Falk) and Division of Oil, Gas and Mining (Pete Hess) participating in the review. A plan to construct permanent seals was submitted to and approved by the Mine Safety Health Administration. Sealing of the mine portals was completed on May 1, 2001.

jheltric

Maps and Plans

Analysis:

The amendment meets the State of Utah R645 requirements for Maps and Plans.

Plate 3-4 clearly delineates the permit area boundary for the main mine site and the waste rock site. The lease boundaries and permit area boundaries for the main mine site and the waste rock site are the same and clearly labeled in the legend.

Plate 4-1 identifies coal and surface ownership within and adjacent to the permit boundaries of the mine and the waste rock site. The legend on Plate 4-1 should be fixed so the labels are not overlapping.

kstorrar

Maps and Plans

Analysis:

The amendment meets the State of Utah R645 requirements for Maps and Plans.

A previous deficiency requested that the Permittee make changes to all maps and plans so that the eastern edge of the permit boundary be defined by the centerline of the adjacent county road as defined in the legal description. Permittee has clarified that the permit boundary will permanently reside on the western edge of the county road so as to avoid the responsibility of any potential environmental violation that may be caused by public use of the county road.

jeatchel

Maps and Plans

Analysis:

The application now meets the R645-301-624 regulations for geologic maps. In the previous submittal (task #5494) there was an error in the map legend on the maps describing the coal seams. The Hiawatha seam was shown in black and the Blind Canyon was shown in Blue on Plates 6-3, 6-4, and 6-5. In this submittal the error has been corrected with the Hiawatha seam being shown in blue and the Blind Canyon seam shown in black. The legend and the maps now coordinate and are correct. The maps supply the required information about the coal seams and overburden thickness.

dhaddock

Environmental Resource Information

Permit Area

Analysis:

The amendment meets the State of Utah requirements for Permit Area.

A previous deficiency required that the Permittee clarify the ownership of the perpetual discharge from the Cottonwood mine. Section 7 .5.2 states that Emery County accepts ownership and all accompanied maintenance of the culvert that carries the discharge water from the Cottonwood mine under the county road to the Fossil Rock bypass culvert. A signed letter from the Emery county road department in appendix 3-11 verifies that the county has agreed to these terms. Plate 7-12 also includes catchment designs for the discharge outfall that the Permittee will construct to catch the mine water discharge from Cottonwood mine upon reclamation.

Also addressed in this deficiency are the disturbance acreage totals, which were previously incorrect. Red line text in chapter 2 correctly states that the total disturbed acreage is 29.07 acres. This total takes into account the 13.25 acres for the mine site and the 15.82 acres for the waste rock site.

jeatchel

Vegetation Resource Information

Analysis:

The amendment does not meet the State of Utah R645 requirements for Fish and Wildlife Resource Information at R645-301-322 and 323.400; The vegetation map (plate 9-1) needs to include the following information:

The township, range and section (s) of the permit boundary;

A clear delineation of the permit area boundary on plate 9-1 and in the legend of plate 9-1 and;

a permit boundary line that is drawn to a scale accurate enough to correctly delineate the noted permit boundary change.

Any revisions to the current map (s) need to be submitted in redline format.

Deficiencies Details:

The amendment does not meet the State of Utah R645 requirements for Fish and Wildlife Resource Information at R645-301-322 and 323.400; The vegetation map (plate 9-1) needs to include the following information:

The township, range and section (s) of the permit boundary;

A clear delineation of the permit area boundary on plate 9-1 and in the legend of plate 9-1and;

a permit boundary line that is drawn to a scale accurate enough to correctly delineate the noted permit boundary change.

Any revisions to the current map (s) need to be submitted in redline format.

jhelfric

Fish and Wildlife Resource Information

Analysis:

The amendment does not meet the State of Utah R645 requirements for Fish and Wildlife Resource Information at R645-301-322 and 323.400; the following information is required:

Plates 10-1 and 2 need to be submitted in redline format that clearly shows the proposed permit boundary change;

Plates 10-1 and 2 need to the township range and section of the revised permit area boundary and

Maps of wildlife species habitats in the Division of Wildlife Resources's Utah Heritage database that are known to exist within the revised permit and adjacent areas. The proposed boundary revision needs to be included on these maps as well. These species may include but are not limited to mule deer, elk, mountain lion and bear.

Deficiencies Details:

The amendment does not meet the State of Utah R645 requirements for Fish and Wildlife Resource Information at R645-301-322 and 323.400; the following information is required:

Plates 10-1 and 2 need to be submitted in redline format that clearly shows the proposed permit boundary change;

Plates 10-1 and 2 need to the township range and section of the revised permit area boundary and

Maps of wildlife species habitats in the Division of Wildlife Resources's Utah Heritage database that are known to exist within the revised permit and adjacent area. The proposed boundary revision needs to be included on these maps as well. These species may include but are not limited to mule deer, elk, mountain lion and bear.

jhelfric

Operation Plan

Mining Operations and Facilities

Analysis:

The amendment meets the State of Utah R645 requirements for Mining Operations and Facilities.

A previous deficiency requested that the Permittee not remove descriptive or adjective parts of sentences that are required for clarity in certain narrative sections in chapter 3. The narrative has been amended to include clarifying adjectives where appropriate. Additionally, the original narrative in Section 3.3.6 incorrectly stated that the mine was in temporary cessation. Narrative has since been changed stating that Permittee moved out of temporary cessation in June 2016.

Relocation or Use of Public Roads

Analysis:

The amendment meets the State of Utah R645 requirements for Relocation or Use of Public Roads.

A previous deficiency required that the Permittee restore the descriptive text detailing access to the site from the county road in Chapter 3 Section 3.2.10. Narrative in Section 3.2.10 has been edited to comply with these requirements.

jeatchel

Air Pollution Control Plan

Analysis:

The application meets the requirements of R645-301-422, because a Small Source Exemption, DAQE-EN156760001-16, was issued to Fossil Rock Mine on September 7, 2016. A discussion of this recent communication with the Utah Division of Air Quality is provided in Section 3.4.7 of the MRP. The Permittee will be required to update DAQ when operations resume (personal communication with Jon Black, DAQ, 12/7/2017).

pburton

Coal Recovery

Analysis:

The amendment meets the State of Utah R645 requirements for Coal Recovery.

A previous deficiency identified several items that needed to be addressed prior to full approval. The first required that the Permittee justify why 1,026,564 tons of coal within the lease is no longer recoverable. Narrative in Section 3.3.3.2 clarifies that this coal is not recoverable because it is located in pillars that are holding up the mine and maintaining the physical integrity intact.

A second item required that the Permittee add narrative in 3.3.6 describing proposed mining operations. Red line text in Section 3.3.6 states that development mining may begin in 2018, and proposes an operating schedule that is similar to the schedule that was being followed by the previous owners of the lease.

jeatchel

Topsoil and Subsoil

Analysis:

The application does not meet the requirements of R645-301-234, topsoil protection measures, because the topsoil protection measures removed from Section 3.5.2, could not be found in the referenced Section 8.7. In addition the application does not dovetail with the mid-term review, task 5561.

Deficiencies Details:

The application does not meet the R645-301-234 requirements. The following deficiency must be addressed prior to final approval:

R645-301-234, Topsoil protection measures removed from Section 3.5.2, could not be found in the referenced Section 8.7.

R645-301-121.100, The narrative in Section 8.7 must include recent changes made with the mid-term review.

pburton

Road Systems Classification

Analysis:

The amendment meets the State of Utah R645 requirements for Road Systems Classification.

A previous deficiency required the Permittee to classify each road on the permit area as primary or ancillary. Narrative in section 3.2.10 describes the layout of the mine site and classifies each access road as primary or ancillary and details the considerations that were made in regards to disturbance and environmental impacts to public and private property.

jeatchel

Spoil Waste Coal Mine Waste

Analysis:

The amendment meets the State of Utah R645 requirements for Spoil Waste/Coal Mine Waste.

In a previous deficiency, narrative had been removed in section 3.3.5.3 indicating that there are to be no refuse piles at the mine site. The narrative has since been amended to include this wording. Additionally, erroneous acreages defining the area of the waste rock site was present in the original MRP. The text in the MRP has since been amended to reflect the correct acreages.

jeatchel

Hydrologic Acid and Toxic forming Materials

Analysis:

The application does not meet the requirements of acid/toxic forming materials, because statements made in Section 3.4.9 should make clear that the parameters listed on both Tables 3 & 7 will be analyzed for the purpose of monitoring acid/toxic waste. Acceptable values for the sediment pond waste to be placed in the surface four feet at the waste rock site are listed in Tables 4 & 8.

Deficiencies Details:

The application does not meet the R645-301-731.300 requirements. The following deficiency must be addressed prior to final approval:

R645-301-731.300, Statements made in Section 3.4.9 should make clear that sediment placed in the surface four feet at the waste rock site must meet the acceptable standards of both Tables 4 & 8 and therefore must be analyzed for the parameters listed on both Tables 3 & 7 of the Division s Guidelines for Management of Topsoil and Overburden.

pburton

Hydrologic Diversion General

Analysis:

The amendment meets the State of Utah R645 requirements for Diversions.

The amendment provides a design for conveying perpetual discharge from the county culvert outlet down to the reclaimed Cottonwood Canyon Creek stream channel. The perpetual discharge from the Cottonwood mine currently flows through the county culvert and into Fossil Rock mine's bypass culvert. At reclamation the Fossil Rock mine will convey this discharge from the outlet of the county culvert across a stable diversion and into the reclaimed channel along Cottonwood Canyon Creek. The amendment provides a cross-section of the design in Plate 7-12. The county has agreed to maintain the culvert running under the road and provides a signed letter stating this in Appendix 3-11. The perpetual discharge is high quality and has flowed at a constant rate since it began discharging when Cottonwood mine was shut down.

kstorrar

Hydrologic Sediment Control Measures

Analysis:

The amendment meets the State of Utah R645 requirements for Sediment Control Measures.

The amendment has removed a deficient narrative that was included in the prior amendment. The previous narrative did not take appropriate measures to, 'Prevent to the extent possible additional contributions of sediment to stream flow or to runoff outside the permit area'. The old narrative discussed the potential of offsite impacts due to limited or non-existent sediment control measures during active operations. The narrative that was on the fourth paragraph of p. 24 in

Chapter 7 has been removed from this amendment.

The MRP already includes more than enough narratives and calculations showing how offsite impacts will be prevented. No additional narrative or calculations are needed for this amendment.

kstorrar

Support Facilities and Utility Installations

Analysis:

The amendment meets the State of Utah R645 requirements for Support Facilities and Utility Installations.

A previous deficiency made reference to narrative within this section that wasn't clear due to the removal of certain text - specifically why "explosive magazines" and "calcium chloride tanks" were removed from section 3.2.3. The text has been amended and the strikeout removed to render the narrative more clear.

jeatchel

Explosives General

Analysis:

The amendment meets the State of Utah R645 requirements for General Explosives.

A previous deficiency made reference to the fact that narrative had been removed within the MRP that details explosive storage on site. The narrative has since been restored to include items that were previously omitted. In addition to this, the narrative points out that there has not been active blasting on site since 2001. Blasting activities may once again resume in the future, at which point the commitments outlined in this section will apply.

jeatchel

Explosives Preblasting Survey

Analysis:

The amendment meets the State of Utah R645 requirements for Explosives Preblasting Survey.

A previous deficiency made reference to the fact that narrative had been removed within the MRP that describes preblasting surveys. The narrative has since been restored to address the omitted text. Since there are no plans to utilize more than five pounds of blasting agent in any eight millisecond period, a preblast survey is not required as per R645-301-524.300

jeatchel

Explosives General Performance Standards

Analysis:

The amendment meets the State of Utah R645 requirements for Explosives General Performance Standards.

A previous deficiency made reference to the fact that narrative had been removed within the MRP that describes general explosives performance standards. The narrative has since been restored to include items that were previously omitted. In addition to this, the narrative points out that there has not been active blasting on site since 2001. Blasting activities may once again resume in the future, at which point the commitments outlined in this section will apply.

jeatchel

Explosives Blasting Signs Warnings Access Control

Analysis:

The amendment meets the State of Utah R645 requirements for Explosives Blasting Signs Warnings Access Control.

A previous deficiency found this section to be lacking a narrative appropriate to a blasting plan. Section 3.3.5.4 makes it clear that the blasting activities at this mine have been notably absent for 16 years, and lays out blasting

commitments that will be followed should the mine return to full production.

jeatchel

Explosives Control of Adverse Effects

Analysis:

The amendment meets the State of Utah R645 requirements for Explosives Control of Adverse Effects.

A previous deficiency found this section to be lacking a narrative appropriate to a blasting plan. Section 3.3.5.4 makes it clear that the blasting activities at this mine have been notably absent for 16 years, and lays out blasting commitments that will be followed should the mine return to full production.

jeatchel

Explosives Records of Blasting Operations

Analysis:

The amendment meets the State of Utah R645 requirements for Explosives Records of Blasting Operations.

A previous deficiency found this section to be lacking a narrative appropriate to a blasting plan. Section 3.3.5.4 makes it clear that the blasting activities at this mine have been notably absent for 16 years, and lays out blasting commitments that will be followed should the mine return to full production. Additionally, Exhibit 1 in Appendix 3-6 provides a typical report that would be compiled to satisfy the requirements of this section.

jeatchel

Maps Facilities

Analysis:

The amendment meets the State of Utah R645 requirements for Facilities Maps.

This section was previously found deficient because Plate 3-1 did not accurately reflect the language in section 3. The facilities on Plate 3-1 have been updated to match the text in section 3.

jeatchel

Maps Mine Workings

Analysis:

The amendment meets the State of Utah R645 requirements for Mine Workings Maps.

A previous deficiency required that clarifying narrative previously omitted be restored to section 3. The strikethrough text of section 3.3.1.4 has been removed and the text now references Plate 3-2, which shows the layout of mined out panels as well as locations of future mining development along 3rd West Mains and two small longwall panels in the U-49332 coal lease area.

jeatchel

Reclamation Plan

General Requirements

Analysis:

The amendment meets the State of Utah R645 requirements for General Requirements.

A previous deficiency required that the Permittee clarify the ownership of the perpetual discharge from the Cottonwood mine. Section 7.5.2 states that Emery County accepts ownership and all accompanied maintenance of the culvert that carries the discharge water from the Cottonwood mine under the county road to the Fossil Rock bypass culvert. A signed letter from the Emery county road department in appendix 3-11 verifies that the county has agreed to these terms. Plate 7-12 also includes catchment designs for the discharge outfall that the Permittee will construct to

catch the mine water discharge from Cottonwood mine upon reclamation.

jeatchel

Mine Openings

Analysis:

The amendment meets the State of Utah R645 requirements for Mine Openings.

A previous deficiency pointed out that according to the State of Utah R645 regulations, (specifically R645-301-513.500, R645-301-529, and R645-301-551) the Permittee will not remove an adjective of the noun from the conclusion sentence in the second paragraph of Chapter 3 Section 3.2.2 thereby making the sentence in a passive voice that is not clear and concise. Further, the Permittee was required to reword the sentences for clarity, and re-write all sentences entirely in an active voice.

The Permittee restored all of the adjectives of the nouns in Section 3, and now satisfies the State of Utah R645 requirements.

jeatchel

Topsoil and Subsoil

Analysis:

The application does not meet the requirements of R645-301-242, soil redistribution, because the plan refers to pulverizing soil in Section 3.5.5.1. The application does not meet the requirements of R645-301-243, because the MRP Sections 3.5.5.1 and 3.5.4 (h) should refer to Appendix 8-3, Post-Grading Sampling Program (per Task 5561 - Midterm review amendment). In addition, this amendment refers to following the "test plot procedures and proven results," for reclamation treatments, but the test plot procedures have been lost (for discussion of missing pages refer to mid-term review task 5561).

It is understood that fertilizer was applied in the test plots and that fertilizer treatments were considered successful. This application states that fertilizer will be applied, if necessary. Reclamation of two adjacent mines (Des Bee Dove in 2001 and Cottonwood/Wilberg in 2017) included an application of inorganic fertilizers. The Division also recommends the addition of nitrogen fixing species.

Plate 3-7 shows contemporaneous reclamation. Final reclamation cross-section station locations are shown on Plate 3-5, Reclamation Contours Phase I. Plates 3-6A through D provide the existing and post mining cross sections at each station. Table 3-4 provides the mass balance calculations. During Phase I reclamation a change has been made to allow portal access roads to remain, along with the sediment pond. During Phase II, the roads and sediment pond will be removed. Phase 1 reclamation shown on Plate 3-5 must show removal of access roads that are not part of the post mining land use. The C1C2 form included with this application replaces Plate 3.5. It is important to realize that there is a Phase I and Phase II Plate 3.5 Map. The C1C2 form with the application must more precisely state replace Plate 3.5 Phase I Reclamation (and keep Phase II reclamation).

Deficiencies Details:

The application does not meet the R645-301-242 Soil Redistribution requirements. The following deficiencies must be addressed prior to final approval:

R645-301-121.100, The narrative in Section 3.5.5.1 must include recent changes to eliminate pulverizing soil with a disc, made with the mid-term review, task 5561.

R645-301-243, The narrative in Section 3.5.5.1 and 3.5.4 (h) must include recent changes adopted with the midterm review, task 5561, to refer to Appendix 8-3, Post-Grading Sampling Program. (A modified version of that sampling program could developed in consultation with the Division.)

pburton

Contemporaneous Reclamation General

Analysis:

The application does not meet the requirements of R645-301244, stabilization, because fertilizer application is described as a treatment for poor vegetation cover. The Division suggests that if contemporaneous reclamation fails, it would be better to re-seed than fertilize the slope. Contemporaneous reclamation is described in Section 3.5.1 for idle or bare areas. This section describes fertilizer application after seeding to increase plant vigor or to obtain the desired cover. Fertilizer is best applied during seed bed preparation, especially on steep slopes. if contemporaneous reclamation fails, it would be better to re-seed than fertilize the slope.

The contemporaneous reclamation plan describes hydromulching slopes of greater than 20 that are hydroseeded. The final reclamation plan is silent on the use of hydromulch. Final slopes are shown on Map 3.5.

Deficiencies Details:

The application does not meet the R645-301-244 requirements. The following deficiency must be addressed prior to final approval:

R645-301-244, Please indicate that fertilizer will be applied during seedbed preparation of contemporaneously reclaimed areas and that contemporaneously reclaimed areas may be re-seeded to improve vegetative cover, rather than fertilized.

Please indicate where hydromulching will be used on final slopes shown on Map 3.5.

pburton

Revegetation Timing

Analysis:

The amendment does not meet the State of Utah Requirements for revegetation timing R645-301-354; Chapter 3, Section 3.4.1 Preservation of Land Use has been revised to refer the reader to Sections 3.5.1 and 3.5.5.2 for descriptions of the seeding plans. These sections include seeding plans for both contemporaneous and final reclamation. The permittee should check the grammar and make the necessary revisions to this sentence.

The redline text in section 3.5.5.2 paragraph one needs to be removed.

Deficiencies Details:

The amendment does not meet the State of Utah Requirements for revegetation timing R645-301-354; Chapter 3, Section 3.4.1 Preservation of Land Use has been revised to refer the reader to Sections 3.5.1 and 3.5.5.2 for descriptions of the seeding plans. These sections include seeding plans for both contemporaneous and final reclamation. The permittee should check the grammar and make the necessary revisions to this sentence.

The redline text in section 3.5.5.2 paragraph one needs to be removed.

jhelfric

Stabilization of Surface Areas

Analysis:

The application does not meet the requirements of R645-301-244, stabilization, because fertilizer application is described as a treatment for poor vegetation cover in Section 3.5.1. Contemporaneous reclamation is described in Section 3.5.1 for idle or bare areas. This section describes fertilizer application after seeding to increase plant vigor or to obtain the desired cover. Fertilizer is best applied during seed bed preparation, especially on steep slopes. if contemporaneous reclamation fails, it would be better to re-seed than fertilize the slope.

The contemporaneous reclamation plan describes hydromulching slopes of greater than 20 that are hydroseeded. The mid-term application removed the use of erosion control blankets from Section 8.9 and final reclamation plan is silent on the use of hydromulch. Final slopes are shown on Maps 3.5.Phase I and Phase II.

Deficiencies Details:

The application does not meet the R645-301-244 requirements. The following deficiency must be addressed prior to final approval:

R645-301-244, Please indicate that fertilizer will be applied during seedbed preparation of contemporaneously reclaimed areas and that contemporaneously reclaimed areas may be re-seeded to improve vegetative cover, rather than fertilized.

Since erosion control blanket was removed from the plan for use on steep slopes, please indicate where hydromulching will be used on final slopes shown on Maps 3.5 Phase I and Phase II reclamation.

pburton

Cessation of Operations

Analysis:

The amendment meets the State of Utah R645 requirements for Cessation of Operations.

A previous deficiency required that the Permittee amend the MRP to clarify the current status of the mine. Narrative in 3.3.6 and 3.3.6.4 makes it clear that the mine was originally placed into cessation in 2001, but was moved out of cessation in June 2016 when mining activities resumed at the waste rock site. Fossil Rock is now considered active.

jeatchel

Bonding Determination of Amount

Analysis:

The application does not meet the State of Utah R645 requirements for General Insurance and Bonding.

Several references are made within the narrative describing soil sampling prior to final reclamation. Volume 4 pages 115 - 116 describe a detailed soil sampling scenario to determine if coal mine waste materials at the Waste Rock Storage Facility comply with criteria contained in the Division's "Guidelines for Management of Topsoil and Overburden." Soils and other materials deemed unacceptable due to sampling will be removed, buried, and covered with 4 feet of nonacid/non-toxic forming materials. Additionally, numerous references mention the use of fertilizer to condition the soils prior to final reclamation. Volume 4 page 53 proposes a methodology to prepare soils for final revegetation to restore the Waste Rock Storage Facility to the approved post-mining land uses of wildlife habitat and livestock grazing. Step 3 of that methodology details a Fertilizer Application scheme where Ammonium Nitrate and Triple Superphosphate will be broadcasted over the areas to be seeded. Neither the proposed soil sampling nor the proposed fertilizer soil amendments to be used in final reclamation are included in the reclamation bond calculations.

Deficiencies Details:

The application does not meet the State of Utah R645 requirements for General Insurance and Bonding. The following deficiency must be addressed prior to final approval:

R645-301-830: The Permittee must provide adequate bond coverage to account for the sampling and soil amendments proposed in volume 4 of the MRP. A line item for soil sampling and fertilizer should be included in the bond for the main facilities site as well as the waste rock disposal site.

jeatchel