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State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
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Division of Oil, Gas and Mining

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November 10, 2016

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

Subject: Disturbed Area & Legal Description Change, Fossil Rock Resources, LLC, Fossil Rock Mine, C/015/0009, Task #5288

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.

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

Sincerely,

A handwritten signature in black ink that reads "Daron R. Haddock".

Daron R. Haddock
Coal Program Manager

DRH/sqs
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State of Utah
 DEPARTMENT OF NATURAL RESOURCES
 MICHAEL R. STYLER
Executive Director
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 JOHN R. BAZA
Division Director

Technical Analysis and Findings

Utah Coal Regulatory Program

PID: C0150009
TaskID: 5288
Mine Name: FOSSIL ROCK MINE
Title: DISTURBED AREA & LEGAL DESCRIPTION CHANGE

Summary

PacificCorp recently sold the Trail Mountain Mine to Fossil Rock Resources, LLC (Fossil Rock). During this transfer of ownership, the boundary line between the Fossil Rock and Cottonwood mine was adjusted from the centerline of Cottonwood Creek (now completely within the Fossil Rock Permit area) to the centerline of Cottonwood County Road. This was done to remove a sliver of property that was originally part of the Cottonwood Mine permit area that now overlaps the Fossil Rock permit area. Fossil Rock is also updating the Mining and Reclamation Plan (MRP) to reflect current conditions, future plans, and new management. A large portion of the permit area had Federal and State Coal Leases relinquished and the permit now reflects the new reduced area.

Deficiencies Details:

Ireinhart

General Contents

Identification of Interest

Analysis:

The amendment meets the State of Utah R645-301-112 requirements for Identification of Interests of the permit area and adjacent areas.

The amendment does not modify the Identification of Interests. All related information can be located in The General Chapter 1 and Chapter 2 of this amendment. The permit is held by Fossil Rock Resources which is owned by Canyon Fuel Company.

Ireinhart

Violation Information

Analysis:

The amendment does not meet the State of Utah R645-301-113 requirements for Violation Information. The General Chapter 1, page 1-6, contains a narrative for violation history. This narrative refers to Table 1-2 that is updated on a yearly basis to include violations occurred.

An AVS check was conducted on October 24 with two outstanding violations found. Recent violations must be incorporated into Table 1-2 and must be disclosed and discussed in more detail pursuant to R645-301-113.

1. State Cessation Order, C61014-P004/1, 254039 BRC Chinook LLC, Permit P00004, 9/30/16
2. State Cessation Order, C61014-P004/2, 254039 BRC Chinook LLC, Permit P00004, 9/30/16

Deficiencies Details:

The amendment does not meet the State of Utah R645-301-113 requirements for Violation Information.

The following deficiency must be addressed prior to final approval:

R645-301-113: The Permittee must update General Chapter 1, Table 1-2 to include recent violations of record. The Permittee must provide a statement regarding the status of aforementioned cessation orders. The statement must include an explanation of the facts involved with the two cessation orders pursuant to R645-301-113.100-400 and also identify how they are being resolved.

Ireinhart

Right of Entry

Analysis:

The amendment does not meet the State of Utah R645-301-114 requirements for Right of Entry Information.

The amendment replaces Chapter 2 and adds Appendix 2. Ch. 2 is updated to include a table showing federal and private coal leases and fee land. The table does not identify lease documents by type, date of execution, or identify the lands to which they pertain. However, Plate 4-1 is referenced and it does identify the leases on a map.

Appendix 2 is a Grant of Temporary Easement for the 2.86 acres (sliver of land between Cottonwood Creek and Cottonwood County Road) that was transferred by Special Warranty Deed. The WD is not included with this amendment. Pursuant to R645-301-114, on fee land recently acquired, a copy of the conveyance must be provided.

Because it is the main purpose of this amendment, the legal description that is being amended must be clear and concise pursuant to R645-301-120.200. If the legal description is modified from the original meets and bounds description, it must be corrected to specifically state, "those portions west of the county road" in Section 25, T. 17S., R.6E. Simply states "part of" does not indicate the property boundary has changed from the centerline of the creek to the road.

Section 4.3.2.2 identifies the lease documents and refers to Appendix 4-2 and 4-2L and Chapter 2. Appendix 4-2 includes copies of leases for UTU-82996 and UTU-49332 but these are expired and not issued to the Permittee (Canyon Fuel Company). The leases contained in Appendix 4-2 are issued to: Lease UTU- 82996 issued to Trail Mountain Coal Company, and Lease UTU-64375 issued to Beaver Creek Coal Company. Appendix 4-2 does not contain a Lease for UTU-49332.

According to Plate 4-1 provided, the coal owner of UTU-64375, UTU-49332, and UTU-082996 is the State of Utah whereas the surface owner is USA. The disturbed area is fee shown as fee land for both surface and mineral estate.

Pursuant to R645-301-120.100, the amendment must contain current information. The Permittee must provide evidence of right of entry issued to Canyon Fuel Company or Fossil Rock Resources. Said evidence must include those requirements set forth in R645-301-114.

Deficiencies Details:

The amendment does not meet the State of Utah R645-301-114 for Right of Entry Information.

The following deficiency must be addressed prior to final approval:

R645-301-114: The Permittee must identify the lease documents by type and date of execution, identify the specific lands to which the document pertains, and explain the legal rights claimed by the applicant. The Permittee must provide evidence of right of entry for federal and fee land recently acquired, a copy of the conveyance must be provided. R645-301-321.100. Current lease and ownership information must be provided.

R645-301-121.200, it is acceptable to modify this Mine Site Permit Area Legal Description to the following: S1/2NW1/4, SW1/4, SW1/4NE1/4: that part west of the County Road, NW1/2SE1/4: that part west of the County Road. If the Permittee

choses to use an meets and bounds description, it must be accurate, clear, and concise.

Ireinhart

Legal Description

Analysis:

The amendment meets the State of Utah R645-301-115 requirements for Status of Unsuitability Claims.

General Chapter 1, page 1-7 provides a narrative describing no areas unsuitable for mining.

Ireinhart

Permit Term

Analysis:

The amendment does not meet the State of Utah R645-301-116 requirements for the Permit Term. A section titled, "Mining Schedule" has been added. This section refers to Sheet 1 (Appendix 2). There is no Sheet 1 Appendix 2. The details required by R645-301-116 have not been provided.

Deficiencies Details:

The amendment does not meet the State of Utah R645-301-116 requirements for the Permit Term.

The following deficiency must be addressed prior to final approval:

R645-301-116: The Permittee must state the anticipated or actual starting and termination date of each phase of the coal mining and reclamation operation and the anticipated number of acres of land to be affected during each phase of mining over the life of the mine.

116.200. If the applicant requires an initial permit term in excess of five years in order to obtain necessary financing for equipment and the opening of the operation, the application will: 116.210. Be complete and accurate covering the specified longer term; and 116.220. Show that the proposed longer term is reasonably needed to allow the applicant to obtain financing for equipment and for the opening of the operation with the need confirmed, in writing, by the applicant's proposed source of financing.

Ireinhart

Permit Application Format and Contents

Analysis:

The amendment meets the State of Utah R645-301-140 requirements for providing a map of the permit area. Plate 3-4 clearly shows the location of the permit area. The maps have been updated accordingly to the lease relinquishments.

Ireinhart

Environmental Resource Information

Permit Area

Analysis:

The amendment does not meet the State of Utah R645 requirements for the Permit Area.

The amendment does not meet the requirements of R645-301-521.140 due to information stated on page 11 of the Chapter 3 that state the incorrect area associated with the mine. The cover letter detail that the amendment included addition of 2.86 acres along the eastern edge of the current permit area but no information was included showing the ownership of the culvert related to the perpetual discharge out of the sealed Cottonwood mine portals.

Deficiencies Details:

R645-521-140: The amendment includes incorrect information within Chapter3 regarding the disturbance acreage and does not discuss the ownership of the perpetual discharge associated with the addition of the 2 acres.

cparker

Fish and Wildlife Resource Information

Analysis:

The amendment meets the State of Utah R645-301-300 requirements for a description of the vegetative, fish, and wildlife resources of the permit area and adjacent areas.

Chapters 9 & 10 of the approved MRP describe vegetative, fish, and wildlife resources of the permit area and adjacent area. This amendment only replaces page 9-13 and plate 9-1 of Chapter 9. The only change to this page is providing references to Section 3.5.5 Revegetation Plan for additional information. There are no other changes to vegetative, fish, and wildlife resources.

Ireinhart

Land Use Resource Information

Analysis:

The amendment meets the State of Utah R645-301-411 requirements for land use information.

Chapter 4 addresses land status, land use, and Post Mining Land Use (PMLU). The amendment replaces pages 1-6 and plates 4-1 and 4-2 of this Chapter.

Page 1 amends section 4.3.1 to remove the legal description (meets and bounds for property west of the creek) and instead references the reader to Chapter 2.

Page 2 amends section 4.3.1.2 to refer the reader to Chapter 2 for the lease area, permit area, and adjacent area. A paragraph is added in regards to land classification as recreation, forestry, and mining.

Page 3 inserts text to reference the reader to Appendix 4-2 and 4-2L for coal lease information. The deficiency in regards to the current lease information is noted in the right of entry section of this review. The text under mineral ownership has been changed to refer the reader to Chapter 2, Appendix 4-2 and Plate 4-1.

All other changes in Ch. 4 are correction of grammar or punctuation.

Ireinhart

Operation Plan

Mining Operations and Facilities

Analysis:

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

The amendment meets the requirements of R645-301-523, -526, and 528 by

The amendment meets the requirements of R645-301-523 by including a description of the mining operation, method of coal mining, engineering techniques, anticipated annual and total production of coal by tonnage, and major equipment to be used for all aspects of those operations proposed to be conducted during the life.

The amendment includes several instances of improper use of red line/strikeout throughout Chapter 3. The Permittee must follow submittal format guidelines described in the Divisions Process guide. Redline/strikeouts included all narrative changes to be in red text to expedite the review process. The Permittee failed to highlight deleted text in red and had several minor instances where new text was also not highlighted in red, i.e. on page 2 of Chapter 3 Section 3.2.2, Section 3.2.7, Section 3.3, and Section 3.3.1.1 includes the addition of the word, "historically" to the beginning of the paragraph that is not shown in proper red line text. The use of the addition of the word historic at the beginning of sections leads to confusing narrative at the Permittee often appears to amend the historic text to match current conditions., i.e. Chapter 3 section 3.3.5.3.

The amendment included removing relevant text within Chapter 3, Section 3.1 pertinent to the history of operations at the historic Trail Mountain mine to Chapter 3 Section 3.3.6.4. The narrative removed from Section 3.1 included the data of mining cessation on March 15, 2001, equipment removal verification, and date of permanent seals placed within the Mine on May 1, 2001.

The amendment improperly includes the removal of adjective of the noun throughout Chapter . For example the word all was removed from the conclusion sentence of the descriptive paragraph of Chapter 3 Section 3.2, Section 3.2.2, Section 3.2.3, Section 3.2.4 . The removal of the word all results in a sentence in a passive voice that is overly vague and not clear /concise. The Permittee may not remove the adjective of the noun creating a sentence in the passive voice that is too vague for the Division to understand what facilities are applicable. In the event the Permittee wishes to reword the sentences for clarity the Permittee should consider re writing the sentence entirely in an active voice.

Narrative was added to section 3.2.7 detailing that as of 2016 the sewage facilities are in believed to be in place but in poor condition. The narrative states that the condition of the facilities will be determined once operations resume at the site potentially in 2018.

Deficiencies Details:

R645-301-121.200: The Permittee will not remove descriptive or adjective parts of the sentences that are required for clarity of the sentence in Chapter 3 Section 3.2, Section 3.2.2, Section 3.2.3, Section 3.2.4, Section 3.2.9, Section 3.2.11 Section 3.3.5, Section 3.3.5.3.

The Permittee failed to highlight deleted text in red and had several minor instances where new text was also not highlighted in red, i.e. on page 2 of Chapter 3 Section 3.2.2, Section 3.2.7, Section 3.3, and Section 3.3.1.1 includes the addition of the word, "historically" to the beginning of the paragraph that is not shown in proper red line text. The use of the addition of the word historic at the beginning of sections leads to confusing narrative at the Permittee often appears to amend the historic text to match current conditions., i.e. Chapter 3 section 3.3.5.3.

Narrative was improperly added to Section 3.3.6 stating that the Mine is not operational and in temporary cessation, however, the Division moved the Mine out of temporary cessation in June of 2016 as active mining is taking place at the site. The narrative proposed in Section 3.3.6 is incorrect in nature and is not recommended for addition to the MRP as it is incorrect.

cparker

Relocation or Use of Public Roads

Analysis:

The amendment does not meet the State of Utah R645 requirements for the Relocation or Use of Public Roads.

The amendment does not meet the requirements of R645-301-521.133 due to proposing the removal of information detailing the access to the site from a county road in Chapter 3 Section 3.2.10

Deficiencies Details:

R645-301-521.133, R645-301-527: The Permittee may not remove descriptive text detailing access to the site from a county road in Chapter 3 Section 3.2.10.

cparker

Air Pollution Control Plan

Analysis:

The amendment and MRP do not meet the State of Utah R645-301-422 requirements for air pollution control plan.

Section 3.4.7 pages 47-48 provide a brief description of air quality monitoring but in general, there is no description of the coordination and compliance efforts with the Utah Division of Air Quality pursuant to R645-301-422.

Deficiencies Details:

The amendment does not meet the State of Utah R645-301-422 requirements for air pollution control plan. The following deficiency must be addressed prior to final approval:

R645-301-422: The Permittee must provide the Division with a description of coordination and compliance efforts which have been undertaken by the Permittee with the Utah Division of Air Quality.

lreinhart

Coal Recovery

Analysis:

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

The amendment does not meet the requirements of R645-301-522 due to text removed from the MRP in Section 3.3.3.1 Maximum Recovery without justification why the stated historic leases on 1,026,564 tons of coal are no longer recoverable. The Permittee must include a discussion of the measures to be used to maximize the use and conservation of the coal resources or justification why said leases are no longer recoverable. A reference for justification was proved in appendix 11-1 which differs from the original reference in Appendix 12-1. The Permittee failed to detail any current plans and operation schedules in Section 3.3.6. The revision contemplates simply putting historic in front of all described operations schedules and equipment. If the described narrative is historic and does not described the Permittee's plans of operations these sections must be updated to provide the proposed mining operations by the Permittee.

Deficiencies Details:

R645-301-121.200, R645-301-522: The Permittee must add a reference to justify the original 1,026,564 tons of recoverable coal are no longer recoverable.

R645-301-523: The Permittee must add narrative to Section 3.3.6 describing mining operations if all the presented information is only historic in nature.

cparker

Subsidence Control Plan Renewable Resource

Analysis:

The amendment meets the State of Utah R645-301-525.130 requirements for Subsidence Control Plan with a renewable resources survey.

The requirements of R645-301-525.130 are met in the amendment as the Permittee presented a clear subsidence plan for protected areas. Specific control measures are detail in Section 3.4.8.2 to repair any subsidence cracks that occur. Chapter 11 detail the applicant's plan to ensure minimal environmental impacts.

cparker

Subsidence Control Plan Renewable Resource

Analysis:

The amendment meets the State of Utah R645-301-332 requirements for describing impacts of subsidence to fish, wildlife, and vegetative resources.

3.4.8 Subsidence Control Plan is discussed on pages 48-51. There are no meaningful changes to this section.

Ireinhart

Subsidence Control Plan Subsidence

Analysis:

The amendment meets the State of Utah R645-301-525.400 requirements for Subsidence Control Plan.

The requirements of R645-301-525.400 are met in the amendment as the Permittee presented a clear subsidence plan for protected areas in Chapter 3 Section 3.4.8. Specific control measures are detail in Section 3.4.8.2 to repair any subsidence cracks that occur. Chapter 11 detail the applicant's plan to ensure minimal environmental impacts. Section 3.4.8.3 states the subsidence monitoring plan by surveying. Historically aerial photogrammetric surveys and annual helicopter flights have been used to monitor subsidence in the area and no subsidence has been documented greater than a few inches.

cparker

Topsoil and Subsoil

Analysis:

Analysis:

The application states in Section 8.7 that if any salvageable topsoil is found, it will be tested in accordance with Table 1 of the Topsoil and Overburden Handling Guidelines. Table 1 of the guidelines describes the soil survey methodology. The Permittee more likely intended to reference Tables 2, 3 & 7 of the Guidelines, which together outline the field and laboratory analysis of substitute topsoil.

Deficiencies Details:

Deficiency:

R645-301-121.200 and R645-301-233, Please correct the statement in Section 8.7 regarding the future evaluation of substitute topsoil. i.e. Table 1 of the guidelines describes the soil survey methodology. The Permittee more likely intended to reference Tables 2, 3 & 7 of the Guidelines, which together outline the field and laboratory analysis of substitute topsoil.

R645-301-231.400, Please provide the volume of soil contained in the topsoil stockpile.

pburton

Vegetation

Analysis:

The amendment meets the State of Utah R645-301-331 requirements for protection of vegetation.

Chapter three discusses the operation and reclamation plan. Section 3.4.5 contains the environmental protection plan for vegetation and there are no amendments to this section.

Section 3.4.1 includes the deletion of commitments to seed before the next growing season and applying treatments of fertilizer and additional seedings until it is determined stable for bond release. A reference to sections 3.5.1 and 3.5.5.2 has been added for the seeding plan. Section 3.5.5.2 states, "after regrading and top soiling, the disturbed area will be mulched, fertilized (if determined beneficial) and seeded.

The commitment to remove the stream diversion culvert and restore the channel was also removed. A reference to section 3.5.5.3 has been added for the culvert removal plan. However, section 3.5.5.3 is "Management" and does not include a plan for the culvert removal. The permittee must provide a restoration plan for the stream channel and culvert removal. More specifically, the Permittee must address a reclamation plan for the integration of the culvert that is used to divert discharge from the Cottonwood Mine Portal (UPDES UT0022896 001-A).

There are no changes to Section 3.4.5 Protection of Vegetative Resources.

Section 3.4.6.1, Projected Impacts of Mining on Fish and Wildlife is deleted from this Section as it was a duplicate from Section 10.4.

Section 3.4.6.2, Mitigating Measures to be Employed to protect Fish and Wildlife is deleted from this Section as it was a duplicate from Section 10.5 and 10.7.

Section 3.4.6.3, Monitoring Procedures is deleted from this Section as it was a duplicate from Section 10.7

Ireinhart

Road Systems Classification

Analysis:

The amendment does not meet the State of Utah R645 requirements for Road Systems and Other Transportation Facilities.

The amendment does not meet the requirements of R645-301-527.100 by classify each road as primary or ancillary due to text in Section 3.2.10 removing the only primary road at the site. A primary road is any road where coal or spoil are hauled and a mine site with no primary road means no coal or spoil are hauled on any roads. The Permittee will amend the narrative within the section to correctly classify all roads within the area.

Road System Plans and Drawings

Analysis:

The amendment does not meet the State of Utah R645 requirements for Transportation Plans and Drawings.
The amendment does not meet the requirements of R645-301-534.100 by not submitting plans and drawing for each road to be maintained within the permit area. The Permittee must submit plans, drawings, and general specification detailed in R645-301-527.200 through 527.240.

Deficiencies Details:

R645-301-527: The Permittee will amend the narrative in Section 3.2.10 to meet R645-301-527 requirements.

cparker

Road System Performance Standards

Analysis:

The amendment does not meet the State of Utah R645 requirements for Performance Standards of roads within the permit area.
The amendment does not meet the requirements of R645-301-534.150 by failing to submitting plans and drawing for each road to be maintained within the permit area to prevent and control erosion.

Deficiencies Details:

R645-301-534.150: The Permittee will amend the narrative in Section 3.2.10 to address R645-301-534.150.

cparker

Road System Certification

Analysis:

The amendment does not meet the State of Utah R645 requirements for Primary Road Certification
The amendment does not meet the requirements of R645-301-521.170 by not submitting plans and drawing for each road to be prepared by or under the direction of and certified by a qualified registered professional engineer

Deficiencies Details:

R645-301-527: The Permittee will amend the narrative in Section 3.2.10 to meet R645-301-527 requirements.

cparker

Road System Other Transportation Facilities

Analysis:

The amendment meets the State of Utah R645 requirements for Other Transportation Facilities.
The amendment meets the requirements of R645-301-521.170 by no changes to the MRP which include plans and drawing for each road, conveyor, and rail system to be used within the proposed permit area.

cparker

Spoil Waste Coal Mine Waste

Analysis:

The amendment does not meet the State of Utah R645 requirements for Coal Mine Waste.

The amendment does not meet the standards or R645-301-528.320 due changes in the MRP text Section 3.3.5.3 that removes text stating that no refuse piles will be at the mine site. The Permittee must amend all relevant sections of the MRP to address the relevant R645 refuse regulations.

Deficiencies Details:

R645-301-500: The Permittee must amend all relevant sections of the MRP to address the relevant R645 coal mine waste. Page 11 of the MRP incorrectly states the wrong number of acres as disturbed area for the waste rock site.

cparker

Spoil Waste Refuse Piles

Analysis:

The amendment does not meet meet the State of Utah R645 requirements for Refuse Piles

The amendment does not meet the standards or R645-301-528.322 due changes in the MRP text Section 3.3.5.3 that removes text stating that no refuse piles will be at the mine site. The Permittee must amend all relevant sections of the MRP to address the relevant R645 refuse

Deficiencies Details:

R645-301-500: The Permittee must amend all relevant sections of the MRP to address the relevant R645 refuse piles

cparker

Hydrologic Sediment Control Measures

Analysis:

The amendment does not meet the State of Utah R645 requirements for Sediment Control Measures.

In Chapter 7, Hydrology, p. 24, the amendment does not provide an adequate narrative for sediment control measures. The amendment states that during construction and upgrading of facilities suspended sediment may runoff into the adjacent stream. This does not meet the minimum requirement that sediment control measures must be design to prevent additional contributions of sediment to the stream outside the permit area.

Deficiencies Details:

R645-301-742. The amendment does not meet the State of Utah R645 requirements for Sediment Control Measures.

In Chapter 7, Hydrology, p. 24, the amendment does not provide an adequate narrative for sediment control measures. The amendment states, "upgrading of surface facilities... may result in temporary increases of suspended sediment... to the stream". Sediment control measures must be designed, constructed and maintained to prevent additional contributions of suspended sediment from leaving the permit area.

kstorrar

Support Facilites and Utility Installations

Analysis:

The amendment does not meet the State of Utah R645 requirements for Support Facilities and Utility Installations.

The amendment does not meet the requirements of R645-301-521.180 and -526 that require the description, plans, and drawing for each support facility to be constructed, used, or maintained within the proposed permit area. The edits within Section 3.2.3 are unclear due to strikeout of specific buildings but support appendices not updated and conflicting narrative by the addition of historic and new language present in the same paragraph.

The revision includes the removal of a Calcium Chloride 500 gallon storage tank for the table in Chapter 3 Section 3.2.3 along with explosive magazine storage without out any supportive narrative. The presumption is that the Permittee will not be storing any explosive on site and removed the 500 gallon tank but there is no narrative justifying or quantifying the removal. An updated SPCC plan should show the location and use of the remaining Diesel, gas, and emulsion oil tanks. In the event of structure removal the relevant Appendix 3-4, 3-7, 3-8, 3-9, 3-10 and 7-13 that include the operation plan for structures were not updated to reflect the removal of the tank or explosives on site.

The Permittee needs to clarify the narrative of Section 3.2.3 as text was added stating historical but followed by statements of "new". The current narrative leads to confusion as to what buildings and structures exist at the site. The narrative of buildings at the site cannot simply be broken up into historic narrative as building are either present at the site or have been reclaimed.

If the intent of the amendment was to update and clarify the facilities narrative the permittee should clarify current buildings and relevant appendices updated with current site structures.

Deficiencies Details:

R645-301-521.180, R645-301-526: The Permittee must include some narrative detailing justification for the removal of the explosive magazines/ calcium chloride tanks and include updated operation plan structures appendices to reflect the removal. The plan should also include an updated SPCC plan within the MRP.

cparker

Signs and Markers

Analysis:

The amendment meets the State of Utah R645 requirements for Signs and Markers.

The amendment meets the requirements of R645-301-521.200 by the general discussion of signs.

cparker

Explosives General

Analysis:

The amendment does not meets the State of Utah R645 requirements for general Use of Explosives.

The amendment does not meet the requirements of R645-301-524 by removing any narrative within the MRP that details explosives being stored on site . Chapter 3 Section 3.2.3 includes the removal of the explosive magazines as active buildings and structures associated with the mine without any clarification. Chapter 3 Section 3.3.5.4 includes the addition of some clarifying text that the explosives were removed from the site in 2001 but that explosive may potentially return. The Permittee may not ask for these sections to be expect from review at the time as they will be part of the approved MRP. The current section does not constitute as a blasting plan and must be removed completely. The Permittee does not have approval for any blasting at the site with the current MRP and must submit a complete blasting plan for Division approval prior to any blasting at the site.

Deficiencies Details:

R645-301-524: The current section3.3.5.4 does not constitute as a blasting plan and must be removed completely.

cparker

Explosives Preblasting Survey

Analysis:

The amendment does not meet the State of Utah R645 requirements for a Preblasting Survey.

The amendment does not meet the requirements of R645-301-524.300 by no discussion of a the preblasting survey plan of the MRP within the amendment.

Deficiencies Details:

R645-301-524.300:The MRP does not contain a sufficient blasting plan.

cparker

Explosives General Performance Standards

Analysis:

The amendment does not meet the State of Utah R645 requirements for establishing General Performance Standards.

The amendment does not meet the requirements of R645-301-524.430 . The current section does not constitute as a blasting plan and must be removed completely.

Deficiencies Details:

R645-301-524.430: The MRP does not contain a sufficient blasting plan.

cparker

Explosives Blasting Signs Warnings Access Control

Analysis:

The amendment does not meet the State of Utah R645 requirements for Blasting Signs and Warnings

The amendment does not meet the requirements of R645-301-524.460 and -524.530 . The current section does not constitute as a blasting plan and must be removed completely.

Deficiencies Details:

R645-301-524.460 and -524.530 The MRP does not contain a sufficient blasting plan.

cparker

Explosives Control of Adverse Effects

Analysis:

The amendment does not meet the State of Utah R645 requirements for Blasting: Control of Adverse Effects

The amendment does not meet the requirements of R645-301-524.600 The current section does not constitute as a blasting plan and must be removed completely. .

Deficiencies Details:

R645-301-524: The current section3.3.5.4 does not constitute as a blasting plan and must be removed completely

cparker

Explosives Records of Blasting Operations

Analysis:

The amendment does not meet the State of Utah R645 requirements for Records of Blasting Operations

The amendment does not meet the requirements of R645-301-524.700 The current section does not constitute as a blasting plan and must be removed completely.

Deficiencies Details:

R645-301-524: The current section3.3.5.4 does not constitute as a blasting plan and must be removed completely

cparker

Maps Facilities

Analysis:

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

The amendment does not meet the requirements of R645-301-521.120 through-521.125 which require maps to clearly show mine facilities. The narrative is unclear what facilities shown on Plate 3-1 are at the site.

Deficiencies Details:

Maps Mine Workings

Analysis:

The amendment does not meet the State of Utah R645-301-521.140 requirements for Mine Workings Maps.

The amendment does not meet the requirements of R645-301-521.140 which requires maps that clearly show all mine plans. The amendment contemplates the removal of narrative in Chapter 3 Section 3.3.1.4 referencing plate 3.2 when the amendment includes updates to Plate 3.2. The permittee may not remove said narrative and must add clarifying narrative of information presented on the updated Plate 3.2

Deficiencies Details:

R645-301-521.140: The permittee may not remove said narrative and must add clarifying narrative of information presented on the updated Plate 3.2

Reclamation Plan

General Requirements

Analysis:

The amendment does not meet the State of Utah R645 requirements for Reclamation Activities.

The requirements of R645-301-540 are not met within the amendment as there is no change to the existing MRP reclamation details when the Permittee must add some discussion of how the addition of the 2 acres is related to the ownership of the culvert under the county road for the perpetual discharge of the Cottonwood Mine.

Deficiencies Details:

R645-301-540: The amendment failed to address how the perpetual discharge of the Cottonwood mine would be handled through reclamation and beyond bond release.

PostMining Land Use

Analysis:

The amendment meets the State of Utah R645-301-412 requirements for postmining land use.

Land use (pre and post) is discussed in Chapter 4 of the approved MRP. This amendment does not contemplate any meaningful changes to this section. The only edits consist of adding references to other sections for more information.

WildLife Protection

Analysis:

The amendment meets the State of Utah R645-301-342 requirements for a fish and wildlife plan for the reclamation and postmining phase of operation.

Volume 1, Chapter 3, Section 3.4.6 contains the protection plan for fish and wildlife.

Volume 1, Chapter 3, Section 3.5 contains the reclamation plan. The plan includes measures that will be used during reclamation to develop habitat. As noted on page 65 of Chapter 3, "During reclamation, the culverts will be removed, and the stream channels will be restored." As noted on page 66 of Chapter 3, "Wherever possible, this (containerized) stock will be spatially arranged in clumps to maximize cover for wildlife". Seed mixes are designed to restore pre-mining wildlife

habitat conditions.

The proposed amendment does not contemplate any meaningful changes to the wildlife protection plan in the approved MRP.

Ireinhart

Mine Openings

Analysis:

The amendment does not meet the State of Utah R645 requirements for Mine Openings.

The requirements of R645-301-513.500, R645-301-529, and R645-301-551 are not met within the amendment as the amendment includes the removal of adjective of the noun from the conclusion sentence in the second paragraph of Chapter 3 Section 3.2.2 there by making the sentence in a passive voice that is not clear and concise. The Permittee may not remove the adjective of the noun creating a sentence in the passive voice that is too vague for the Division to understand what facilities are applicable. In the event the Permittee wishes to reword the sentences for clarity the Permittee should consider re writing the sentence entirely in an active voice.

The majority of the amendment includes the removal of there is no substantial change to the existing MRP sealing of mine openings at the time of final reclamation. The MRP still contains a basic description of the five portals associated with the old Trail Mountain Mine. Plate 3-1 shows the locations for all five portals.

Deficiencies Details:

R645-301-121.200: The Permittee will not remove descriptive or adjective parts of the sentences that are required for clarity.

cparker

Topsoil and Subsoil

Analysis:

Analysis:

Section 8.8 refers to Section 3.5.4 for backfilling and grading plans. Table 3-4 provides a mass balance table, which indicates that approximately 39,000 CY of available soil in the berms and pads will be moved to achieve the Post Mining Topography shown on Plate 3-5. Cross section locations are shown on Plate 3-1 and 3-5. Cross sectional areas are shown on Plate 3-6. Soil with greater than 50% coal content or high in salts will be hauled to the waste rock site (Section 3.5.5.1). The pad area will be ripped to a depth of 12 - 24 inches (Section 3.5.4.1). Topsoil from the topsoil stockpile will be spread to a depth of six inches over the site. After grading (topsoil), the site will be surface roughened to create pockets for water retention (Sec. 3.5.5.1) Then soil will be sampled for nutrient analysis (Section 8.8 and Appendix 9-1, Attachment C). Soil preparation is also described in Appendix 9-1, Attachment C.

Methods of erosion control that may be implemented are specified in Section 3.5.4.3 and in Section 8.9) Seed mixes are listed in Appendix 9-1. The reclamation schedule is said to be shown in Table 3-3 (Section 3.5.6). Test plots are referenced in Section 3.5.5, but their location or the outcome of the test plots was not noted.

Deficiencies Details:

Deficiency:

R645-301-122, Please provide Plate 3-1, Surface Facilities; and Table 3-3, Reclamation Timetable; and Appendix 9-1, Reclamation and Revegetation of the Mine; and 9-2, Soil and Vegetation Test Plot Monitoring, all of which are referenced, but could not be found with the application.

pburton

Hydrological Information Reclamation Plan

Analysis:

The amendment does not meet the State of Utah R645 requirements for Reclamation of Diversions.

The amendment does not adequately address the perpetual mine water discharge from Cottonwood mine that flows through

a county culvert and into Fossil Rock's undisturbed bypass culvert. The amendment must provide designs of an engineered permanent diversion for this perpetual discharge that will be installed at the time of reclamation of the Fossil Rock mine and Cottonwood Canyon Creek. The permanent diversion must be designed to convey the perpetual mine discharge from the outlet of the county culvert into the reclaimed Cottonwood Canyon Creek.

Deficiencies Details:

R645-742.300; R645-761: The amendment does not meet the State of Utah R645 requirements for Reclamation of Diversions.

The amendment does not adequately address the perpetual mine water discharge from Cottonwood mine that flows through a county culvert and into Fossil Rock's undisturbed bypass culvert. The amendment must provide designs of an engineered permanent diversion for this perpetual discharge that will be installed at the time of reclamation of the Fossil Rock mine and Cottonwood Canyon Creek. The permanent diversion must be designed to convey the perpetual mine discharge from the outlet of the county culvert into the reclaimed Cottonwood Canyon Creek.

kstorrar

Contemporaneous Reclamation General

Analysis:

The amendment meets the State of Utah R645-301-352 requirements for contemporaneous reclamation. Contemporaneous Reclamation is discussed in Section 3.5.1. The amendment does not contemplate any meaningful changes to the approved MRP.

Ireinhart

Revegetation General Requirements

Analysis:

The amendment meets the State of Utah R645-301-341 requirements for revegetation plan. The reclamation plan for final revegetation is located in Section 3.5.5. The amendment does not propose any meaningful changes to this section.

The amendment meets the State of Utah R645-301-353 requirements for vegetative cover.

Vegetation monitoring is discussed in Ch. 3, Section 3.5.5.4 and Chapter 9, Section 9.8, and Table 3-2 of the approved MRP. This amendment does not contemplate any meaningful changes to the approved MRP.

Ireinhart

Revegetation Standards for Success

Analysis:

The amendment meets the State of Utah R645-301-356 requirements for revegetation standards for success.

Success standards are identified in Sections 9.3.8 and 9.8 of the approved MRP. This amendment does not contemplate any meaningful changes to this section. Two vegetation communities were assigned reference areas. They have been permanently marked and shown on Map A, Appendix 9-1. Revegetation success at the mine will be based on comparison with the approved reference areas. Ground cover, production, and woody plant density shall be used to determine success of reclamation.

Ireinhart

Stabilization of Surface Areas

Analysis:

The application meets the requirements of R645-301-244, soil stabilization. The site will be surface roughened to create pockets for water retention (Sec. 3.5.5.1). An erosion control mat will provide stabilization (Section 8.9) Other methods of erosion control that may be implemented are specified in Section 3.5.4.3. Seed mixes are listed in Appendix 9-1.

pburton

Cessation of Operations

Analysis:

The amendment does not meet the State of Utah R645 requirements for Cessation of Operations

The requirements of R645-301-515 and -541 are not met within the amendment as there is conflicting information in Chapter 3 that states the mine is still in cessation which is false. The Permittee will correct all relevant sections of the MRP to correctly state that the mine began actively mining the site in June of 2016.

Deficiencies Details:

R645-301-515 and -541 Within the amendment as there is conflicting information in Chapter 3 that states the mine is still in cessation which is false. The Permittee will correct all relevant sections of the MRP to correctly state that the mine began actively mining the site in June of 2016.

cparker

Bonding and Insurance General

Analysis:

The amendment does not meet the State of Utah R645 requirements for Bonding and Insurance Requirements.

The amendment does not meet the requirements of R645-301-800 as the Permittee must add some discussion of how the addition of the 2 acres is related to the ownership of the culvert under the county road for the perpetual discharge of the Cottonwood Mine.

Deficiencies Details:

R645-301-540,R645-301-542.800,R645-301-830.140: The amendment failed to address how the perpetual discharge of the Cottonwood mine would be handled through reclamation and beyond bond release. The addition of the legal includes a culvert and must show reclamation of the outfall for perpetual discharge.

cparker