



State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

October 27, 2015

Corey Heaps, Mine Manager
Canyon Fuel Company, LLC
HC 35 Box 380
Helper, Utah 84526

Subject: Application Review and Deficiencies, Swens Canyon Ventilation Facility, Canyon Fuel Company, LLC, Skyline Mine, C/007/0005, Task ID #4935

Dear Mr. Heaps:

The Division has reviewed your application for the Swens Canyon Ventilation Facility Permit Revision. A copy of our review is enclosed. The Division has identified deficiencies in addressing the Utah Coal Mining Rules. The deficiencies are listed and will need to be addressed before further processing can occur. The initials of the deficiencies author are provided so that your staff can communicate directly with that individual should questions arise.

The plans as submitted are incomplete. Please revise the application accordingly in order for us to complete the processing of your permit revision.

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

Sincerely,

Daron R. Haddock
Coal Program Manager

DRH/sqs
Enclosure
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GARY R. HERBERT
Governor

GREG BELL
Lieutenant Governor

State of Utah

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Technical Analysis and Findings

Utah Coal Regulatory Program

October 27, 2015

PID: C0070005
TaskID: 4935
Mine Name: SKYLINE MINE
Title: SWENS CANYON VENTILATION FACILITY

Summary

The Swens Canyon application describes a 2.62 mile powerline (Sec 2.9.7) which will disturb a 15 ft wide swath along its length. (The total powerline disturbance is 4.8 acres.) The powerline is a 3-phase, 12.5 kV, single pole line with adaptation for raptors. No road building is involved in construction of the powerline. To minimize visual impact, the powerline will be buried under Huntington Creek (p. 2-68 and p. 2-131).

The Swens Canyon facility will be 120 -150 feet from state highway 264. At Swen's Canyon, 6.8 acres will be disturbed, although 9.7 acres is included in the permit area (Sec 2.1 and Sec 2.9). The Swen's Canyon facility will include construction of a 900 ft access road (p. 4-114(a); two vertical shafts: a 16 foot diameter escapeway and a 6 or 8 foot diameter exhaust shaft, without a fan (Sec. 2.2, p. 2-21b and Sec 2.9.7 and p. 3-31b); a sediment pond to contain drill cuttings (Sec 2.3 and p 3-21 and p. 3.2.2); a topsoil stockpile; and the installation of a transformer.

General Contents

Identification of Interest

Analysis:

The information provided meets the requirements of R645-301-112, Identification of Interests.

The Permittee and Operator is Canyon Fuel Co. The legal and financial information for Canyon Fuel Co is provided in General Chapter 1. The resident agent is Corporation Service Company, Salt Lake City. The contact person is Eugene E. DiClaudio. He is also responsible for AML fee payment.

Canyon Fuel is owned by Bowie Resource Holdings, LLC. and Bowie Resource Partners, LLC. both with corporate offices in Louisville, Kentucky. Ultimate ownership of the above companies is by Galena US Holdings Inc and Cedars Energy, LLC. Both Galena US Holdings Inc and Cedars Energy LLC are in turn controlled by individuals and corporate entities. The ownership tree is illustrated on Figure 1-1 of General Chapter 1. The The list of officers and directors for Canyon Fuel Co and all its owners is found in Appendix 1-1 of General Chapter 1, which remains unchanged since 2013.

The ownership entities were evaluated in the Applicant Violator System on June 29, 2015 with no violations reported.

pburton

Violation Information

Analysis:

The application does not meet the requirements of R-645-301-113, Violations, which requires that the applicant provide, "a list of all violation notices received by the applicant during a three year period preceding the application date." Section 113 and Table 1-2 of General Chapter 1 provide information on violations issued at Canyon Fuel Co., LLC mines and mines controlled by the owners of Canyon Fuel Co., LLC. The current practice in Table 1-2 is to report violations, even those vacated. In 2014 and 2015, there were violations issued, and subsequently vacated at the Skyline Mine and the Gordon Creek Mine. The violations issued at Gordon Creek and Skyline mines are not listed. The list of violations in Table 1-2 must be updated prior to approval.

Deficiencies Details:

Finding:

R645-301-113, The application does not meet the requirements of R645-301-113 because the list provided in Table 1-2 is not consistent in its reporting of all violations received, even those vacated. In 2014 and 2015, there were violations issued, and subsequently vacated at the Skyline Mine and the Gordon Creek Mine. The violations issued at Gordon Creek and Skyline mines are not listed. The list of violations must be updated prior to approval.

pburton

Right of Entry

Analysis:

The application meets the requirements of R645-301-114, Right of Entry. Swens Canyon shaft will be located in T 13 S, R 6 E Section 27 adjacent to Hwy 264 (shown on Dwg 1.6-3). The powerline will stretch over Section 27, 28, 23 and 13 of T13S, R6E. Both the powerline and surface disturbance all lie within Lease UTU-44076. The United State Forest Service is the surface managing agency and was consulted during the site planning process.

The Permittee states that the shaft is required for the existing mine and will be used to access federal coal lease UTU-771114 (Flat Canyon) in the future. The lease boundaries are portrayed on Dwg 1.6-3 and described in Table 1.114 and pp. 1-32 and 1-39.

pburton

Legal Description

Analysis:

The information provided does not meet the requirements of R645-301-121.100, Legal Description and R645-300-141 Bonded Area Description.

The shaft is located on the north side of the mouth of Swen's Cyn in the SW 1/4 NW 1/4 Sec 27 T 13 S, R 6 E. on USFS managed land within Lease UTU-44076. The legal description is specifically provided for the fifteen foot wide powerline on p. 1-34a. The powerline will be disturbed 4.8 acres (p. 1-34a). Total acreage for both powerline and shaft is stated as 14.50 acres on p. 1-37 and in the public notice. By subtraction, the Division arrives at 9.7 acres associated with the shaft disturbance. The legal description provided on page 1-38 identifies the S1/2NW1/4 and S1/2NE1/4 in Sec 27 T13S, R6E being added to the permit area. A more specific legal description and acreage of the shaft disturbed area must be included.

The path of the powerline and the location of the shaft are shown on Dwg 1.6-3, Skyline Mine Permit Area. With this action, the total permit areas to be reclaimed (bonded area) totals 136.81 acres (p. 1-37).

Deficiencies Details:

R645-301-141, Bonded Area Description. A specific legal description and statement of the acres associated with the shaft disturbance and bonded area must be included.

pburton

Permit Term

Analysis:

The information provided meets the requirements of R645-301-116, Permit Term. The existing 5 year permit issued 2012 with right of successive renewal. The life of mine with existing leases is through June 2019 (p. 1-36).

pburton

Public Notice and Comment

Analysis:

The application has not met the public notice requirements of R645-300-120. A draft version of the public notice was provided in the application and the Permittee was advised to move forward with publication of the public notice (outgoing letter dated 7/14/2015). However, a search of the Utah legal notice database indicates that the notice has not yet been published. The requirements R645-301-117.200 have not been met at this time.

Deficiencies Details:

R645-300-120 and R645-301-117.200, Provide public notice of this proposal and after the last publication date, provide an affidavit of publication to be made part of the application.

pburton

Reporting of Technical Data

Analysis:

The application meets the requirements of R645-301-130, Reporting of Technical Data.

The application includes the following reports:

2002 Flat Canyon EIS produced by USFS and BLM is found in Vol. 2, App.. A-3

The PHC in Vol 2., App. N and O was written by Peterson Hydrologic, Inc
Peterson Hydrologic Investigation of Groundwater and Surface-Water Systems Aug 13, 2014.

Peterson Hydrologic. Aug. 18, 2104. Groundwater Conditions in the Star Point Sandstone.

Alpine Ecological.2013. Wildlife Survey Report Powerline, Ventilation Hole, Access Road Analysis Area, Subsidence Area, and Spring Survey.

Alpine Ecological. November 16, 2014. 2014 Wildlife Survey Report Power Line and Ventilation Pad.

Environmental Planning Group, LLC. Oct 7, 2014. Cultural Resource Inventory For the Skyline Mine Expansion and Transmission Line Construction Project, Carbon and Emery Counties, Utah.

Mt. Nebo Scientific Dec. 2014. Vegetation of the Powerline Corridor & Swen Canyon Pad.

Joseph Dyer. June 19, 2014. NRCS Prime Farmland Determination.

Long Resource Consultants. December 4, 2014. Powerline Corridor Soil Survey Report.

Earthfax Engineering December 2014. Skyline Mine Swen Canyon Ventilation Shaft Pad Design Report.

Deficiencies Details:

R645-301-121.200, The Swens Canyon facility will have two vertical shafts: a 16 foot diameter escapeway and a smaller exhaust shaft that is described as both six feet and eight feet in diameter (Sec. 2.2, p. 2-21b and Sec. 2.9.7 p. 3-31b). Please confirm whether the shaft will be six or eight feet in diameter.

pburton

Environmental Resource Information

General

Analysis:

The application meets the minimum requirements of R645-301-521 in regards to environmental information related to engineering due to information stated in Chapter 2 section 2.1 general environmental resources summary. The additional text to the section details the preliminary studies for permitting conducted in 2014. The study area covered 13 acres for the 9.7 acres for the proposed pad site and 200 ft corridor for the 4.8 acres for a 15 ft wide 2.6 mile long power line corridor.

cparker

Permit Area

Analysis:

The application meets the minimum requirements of R645-301-521.140 due to information stated in Chapter 2 Section 2.1 that states the disturbed area will included a total of 14.5 acres of pad and power line corridor. Updated plates which match the provided legal description of the mine boundary were provided in plates 3.2.4-4A through 3.2.4-4 F and 1.6-3.

cparker

Historic and Archeological Resource Information

Analysis:

As noted on page 2-4c2, an intensive class III cultural resource survey was conducted on the areas to be disturbed, including those areas that are associated with other amendments. The report identifies the areas associated with this project as third and fourth parcels. A total of five (5) isolated occurrences and three (3) new resources were identified. None of the sites were recommended for eligibility in the NRHP. Cultural resource report No. U-14-EO-0753f; ML-14-1535 has been provided as evidence of SHPO consultation and concurrence. None of the three new sites found within the project area are eligible for the NRHP (isolated occurrences are not recorded). No historic properties will be affected by the proposed project.

A map of the survey location is provided as figure 2-2 in the cultural resources report.

Findings: Information provided in the application meets the minimum requirements of R645-301-411

ireinhart

Vegetation Resource Information

Analysis:

Section 2.7.9, page 2-63a, describes general vegetation of the powerline corridor & Swens Canyon pad. A detailed report conducted by Mt. Nebo Scientific describes those plant communities that could be impacted and provides qualitative and quantitative data from sampling within them. The report also provides data from reference areas that could be used for future revegetation success standards at the time of final reclamation. A list of potential threatened, endangered, candidate and sensitive plant species known to occur in the general area is provided including the potential impacts that could occur from proposed construction activities at Skyline Mine. The report contains numerous photos of the vegetation communities and a map indicates general locations of veg study areas and powerline route.

Findings: The information provided is adequate to predict the potential for reestablishing vegetation and productivity of land before mining and meets the requirements of R645-301-321.

ireinhart

Fish and Wildlife Resource Information

Analysis:

Although not included in the approved MRP (at time of this review), a separate amendment (NOG Bleeder Shaft) has updated the T&E species list utilizing the IPaC Trust Resource Report provided by Fish and Wildlife Service. Upon inclusion of that list into the existing MRP and thus the revised application, threatened, endangered, and candidate species should be

adequately identified for the entire permit area. However, since that has not been incorporated into the red-line/strike out application at present time, a deficiency is noted here.

A close inspection of the updated T&E report in connection with this application reveals several species warrant further consideration beyond what is discussed in the approved MRP pursuant to R645-301-322.100. These species are Western Toad, Greater Sage-grouse, American Three-toed Woodpecker, and Southwestern willow flycatcher.

The 2013 & 2014 wildlife report is provided for explanation of potential habitat for species that may be impacted. The report adequately covers Northern Goshawk, and other general raptors. It does not adequately cover western boreal toad. The survey also did not cover Greater sage-grouse, American three-toed woodpecker, Mexican spotted owl, Southwestern willow flycatcher, or Yellow-billed cuckoo. It should be noted that the survey states, "There are no threatened, endangered, or candidate species known to occur within the project area". Although there may not be any occurrence records, the Fish and Wildlife Service does list several species that should be evaluated in the project area (See IPaC). The information as written is misleading and should be revised to indicate none of the species listed for that area have known occurrences in the area.

Yellow-billed cuckoo habitat was evaluated and discussed in the NOG Bleeder Shaft amendment and can be included for this amendment since it has recently been incorporated into the existing MRP.

The project is located within the Carbon County Greater Sage-grouse Management Unit. The shaft location is outside brooding and nesting habitat boundaries (as determined by UDWR field biologists in 2011) but is in close proximity (1 mile) to occupied habitat. The site contains all requirements for nesting and brooding and therefore, a narrative describing why Greater sage-grouse are not likely to inhabit the site is required. Simply being beyond a known boundary drawn on a map does not exclude the potential habitat. Prior to approval, further analysis of Greater sage-grouse is warranted and must be evaluated and/or described in more detail.

The location of the western toad survey is approximately 5 miles away yet there is a wetland adjacent to the proposed vent facility. There is also an occurrence record of the toad in very close proximity to this site. Prior to approval, the applicant must commit to survey for Western Toad in the adjacent wetland area. If the toad is found protection and mitigation measures must be addressed.

The 2013 & 2014 wildlife report provides an explanation for potential habitat for several avian species that may be impacted. The report adequately covers Northern Goshawk, and other general raptors. The survey did not cover Greater sage-grouse, American three-toed woodpecker, Southwestern willow flycatcher, or Yellow-billed cuckoo. The report does not adequately cover western boreal toad.

Deficiencies Details:

R645-301-322. Information provided in the application is not considered adequate to meet the minimum requirements of the regulations. Prior to approval, the permittee must provide incorporate the updated threatened, endangered, candidate, and sensitive species list into the MRP and conduct a habitat evaluation of site specific species with this application. These species are: Western Toad, Greater Sage-grouse, American Three-toed Woodpecker, and Southwestern willow flycatcher.

Ireinhart

Soils Resource Information

Analysis:

Analysis:

The information provided does not meet the requirements of R645-301-200, Soils Resource, because the soil survey did not include the 0.3 mile long corridor for power line burial.

Chap 2, Sec 2.7 & Sec 2.11 & 2.12. describe the pre-mining resources. The description is based on the Order II Powerline Corridor Soil Survey Report by Long Resource Consultants, December 4, 2014 found in App. A2, Vo. 2. this soil survey includes 11.8 acres in the coal pile expansion area; 18.9 acres at Swen's Canyon; and, 77 acres of powerline corridor. But it stops short at the location where the powerline goes underground.

Two soil sample locations are shown on Figure 2 on the Swen's Canyon pad area. They are sample 14SKY14 and 14SKY15. Appendix A of App. A2 provides the soil profile descriptions for those locations. Appendix B provides soil profile location photographs. Appendix C provides soil profile box photographs. Appendix D provides laboratory analysis for 14SKY14 and 14SKY15. Soil location 14SKY14 was mapped in the Kamack family sandy loam on convex slopes (10 - 35%). Soil location 14SKY15 was mapped as Hailman family sandy loam on concave slopes (5-15%). The Kamack family

is map Unit S2 is the Typic Haplocryoll and the Hailman family is map unit S2, a Pachic Haplocryoll. This mapping corresponds to the Manti La-Sal soil map unit 32, Pando-Toze families 2-15% slopes. Dominant vegetation is mountain big sagebrush, quaking aspen, Oregon grape, buckwheat, mountain brome, grasses and forbs. The Manti LaSal soil survey mentions silver sage as a dominant forb. The elevation is 8,687 feet.

Three sample locations are shown on Figure 2 for the transmission line corridor. They are 14SKY10, 14SKY09, and 14SKY08. These soils are also mapped on Figure 2. They are Sout-Merino families (15-60% slopes) and Lotex-McCadden families (5-25% slopes). These are shallow sandstone derived soils. The average depth to bedrock is 20 inches along the ridge. Vegetation is mixed conifer, aspen and mountain shrubs. The transmission corridor was mapped by the Manti-LaSal National Forest as Map Units 32, 42 and 560. These map units are Pando-Toze families (2-15% slopes); Becks-Cryaquolls-Silas families (0-5% slopes); and Lucky Star-Skylick families (30-60% slopes), respectively.

Table 11 in Appendix A2 provides an estimated topsoil salvage depths for map unit S1 (16 inches) and S2 (10 inches). A subsoil salvage depth is also proposed for S1 (27 inches) and for S2 (31 inches).

Deficiencies Details:

R645-301-200, The soil survey must include more detail on the soil resources to be disturbed by the 0.3 mile long burial of the powerline so that an operation plan can be developed.

R645-301-222.400 and R645-301-231.300, Include in the pre-disturbance soil survey information the nutrient status of the topsoil (N;P;K). Please refer to Table 3 of the Division's January 2008 Guidelines for Topsoil and Overburden.

pburton

Land Use Resource Information

Analysis:

2.12.2 Discusses land use, which is primarily grazing, and wildlife and forestry use. Table 2.12.2-1 incorporates AUM's from the Swens vent pad. However, the table is not calculated (or displayed) correctly and must be fixed to show accurate production measurements in AUM's (i.e. there is no way the 9.7 acre sagebrush community can support 197.9 AUM's this would equate to approximately 158,320 lbs. of dry weight forage). Section 2.12 of the MRP discusses land use of the adjacent area and further explanation is not warranted in this amendment.

Deficiencies Details:

Information provided in the application does not meet the minimum requirements of the regulations. Prior to approval the permittee must correct table 2.12.2-1 to provide accurate production measurements in AUM's or clarify the table (land capability) in accordance with: R645-301-411

Ireinhard

Prime Farmland

Analysis:

Analysis:

The application meets the requirements of R645-301-221, prime farmland reconnaissance investigation. An email discussing the potential for prime from Joseph Dyer, Area Resource Soil Scientist with the NRCS/Price Field Office is included in Appendix A-2 Volume 2. It is accompanied by two files showing the locations of the sections evaluated and the terrain. However, the files sent with the maps were not included and therefore evaluation of the information presented is not readily available to the Division. However, having been at Swen's Canyon and seen the location of the proposed ventilation shafts, I agree that there is no prime farmland present. And soil mapping units described for the shaft location are not prime farmland soils (App. A-2, Vol. 2).

pburton

Geologic Resource Information

Analysis:

R645-301-624. Geologic information will include, at a minimum, the following:

624.100. A description of the geology of the proposed permit and adjacent areas down to and including the deeper of either

the stratum immediately below the lowest coal seam to be mined or any aquifer below the lowest coal seam to be mined which may be adversely impacted by mining. This description will include the regional and structural geology of the permit and adjacent areas, and other parameters which influence the required reclamation and it will also show how the regional and structural geology may affect the occurrence, availability, movement, quantity and quality of potentially impacted surface and ground water. It will be based on:

624.110. The cross sections, maps, and plans required by R645-301-622.100 through R645-301-622.400.

624.120. The information obtained under R645-301-624.200, R645-301-624.300 and R645-301-625; and

624.130. Geologic literature and practices.

While the plan contains some geologic information, it appears that some may be missing. In the cover letter with this application was a response that discusses how issues raised in the ACR were addressed. It indicates that Section 2.2.13 was modified to include a lithologic log and a statement that a drill hole will be done at the shaft location prior to shaft construction. In looking through Section 2.2.13 this information could not be located.

There is a lithologic log of drill hole 95-28-1 that is included in Appendix A-4. Perhaps this was the log that was being referred to. The 95-28-1 drill hole log does contain descriptions of the lithology down to 1650 feet. The coal seam is located from approximately 1211 feet to 1219 feet with another seam located from about 1157 feet to 1164 feet. From the log there is no indication of strata that would be toxic or acid forming or cause deleterious effects to the environment. A drill hole at the shaft location would be very helpful in verifying the lithology of the strata at this location. This commitment seems to be absent and must be located in the mine plan.

Deficiencies Details:

R645-301-623. While the plan contains some geologic information, it appears that some may be missing. In the cover letter with this application was a response that discusses how issues raised in the ACR were addressed. It indicates that Section 2.2.13 was modified to include a lithologic log and a statement that a drill hole will be done at the shaft location prior to shaft construction. In looking through Section 2.2.13 this information could not be located.

A drill hole at the shaft location would be very helpful in verifying the lithology of the strata at this location. This commitment seems to be absent and must be located in the mine plan.

dhaddock

Hydro Sampling and Analysis

Analysis:

The information provided and contained within the currently approved MRP is sufficient to meet the requirements of the State of Utah R645-301 Coal Mining Rules.

Methods used to conduct water sampling are described in the PHCs. Laboratory analysis of water samples are typically performed by SGS Laboratories and Chemtech Ford Laboratory. These labs are both NELAC certified. Any isotopic analysis done of water samples were conducted at the University of Miami, Florida, the BYU Department of Geology, and Geochron Laboratories of Cambridge, Massachusetts.

adaniels

Hydro Baseline Information

Analysis:

The information provided and contained within the currently approved MRP is sufficient to meet the requirements of the State of Utah R645-301 Coal Mining Rules.

The Permittee has states that there are no groundwater springs in the vicinity of the Swens Canyon Ventilation Facility. This facility is located on a south-facing, sagebrush covered ridge.

Monitoring location CS-16 is located on Swens Creek, downstream of disturbance related to this facility. This monitoring point is already part of the Skyline operational water monitoring program and has been monitored since 2001.

Monitoring location CS-28 has been added to the monitoring program, and is a stream monitoring location located on Swens Creek above any potential disturbances related to the Swens Canyon Ventilation Facility. This site has had baseline data collected that was for the purpose of mining the proposed Flat Canyon Coal Lease.

adaniels

Hydro Baseline Cumulative Impact Area

Analysis:

The information provided and contained within the currently approved MRP is sufficient to meet the requirements of the State of Utah R645-301 Coal Mining Rules.

Hydrologic and geologic information has been provided for the proposed ventilation facility area. Much of this area has already been discussed in the MRP and the CHIA.

adaniels

Hydro Modeling

Analysis:

The information provided and contained within the currently approved MRP is sufficient to meet the requirements of the State of Utah R645-301 Coal Mining Rules.

No additional modeling was required for the proposed ventilation facility.

adaniels

Probable Hydrologic Consequences Determination

Analysis:

The information provided and contained within the currently approved MRP is not sufficient to meet the requirements of the State of Utah R645-301 Coal Mining Rules.

Section 2.3 of the MRP contains the probable hydrologic consequences of mining at the Skyline Mine. This section was revised to discuss sediment control features that will be used at the proposed ventilation facility, and references section 3.2, which describes in more detail how these sediment control features will be placed and functioned. A report prepared by EarthFax Engineering also details a design report of the facility as well.

While the application does describe some of the operations that will be taken to prevent hydrologic consequences during construction, operation, and reclamation of the ventilation facility. The Permittee failed to follow rules R645-301-728.300-335.

Deficiencies Details:

R645-301-728.300-335 The permit application does not follow the PHC determination rules as outlined in the referenced Coal Mining Rules. While the application does describe and reference the operations that will be taken to prevent hydrologic consequences during construction, operation, and reclamation of the ventilation facility, there is still no specific determination statement as required in R645-301-728. There should be one cohesive statement of determination within the application pertaining to the proposed surface disturbance.

adaniels

Hydro GroundWater Monitoring Plan

Analysis:

The information provided and contained within the currently approved MRP is sufficient to meet the requirements of the State of Utah R645-301 Coal Mining Rules.

There is no new ground water monitoring needed for the small amount of disturbance required for the proposed Swens Canyon Ventilation Facility.

adaniels

Hydro SurfaceWater Monitoring Plan

Analysis:

The information provided and contained within the currently approved MRP is sufficient to meet the requirements of the State of Utah R645-301 Coal Mining Rules.

There are two surface water monitoring locations that will be utilized to evaluate any potential impacts to surface water. These points are stream monitoring locations CS-16 and CS-28. CS-28 will provide an upstream of disturbance monitoring point on Swens Creek, and CS-16 will provide a downstream monitoring point on Swens Creek. Between these two point, there should be sufficient data to evaluate whether there are any impacts to the creek from the new surface disturbance. CS-16 has had data collected and submitted to the Division since 2001.

adaniels

Maps Affected Area Boundary Maps

Analysis:

The application meets the minimum requirements of R645-301-521.100 through-521.130 by updating all the relevant maps for the entire area relevant to Swens Canyon ventilation pad as shown on the mine drawings detailed on plates 3.2.4-4A through 3.2.4-4F and 1.6-3.

The application meets the minimum requirements of R645-301-521.110.R645-301-521.110 which requires previously mined areas to be shown on Drawing 2.2.7-7. The previously mined areas are also discussed in Chapter 2 section 2.12.2. No changes were made to the MRP text within the above section at the time of this amendment.

cparker

Maps Existing Structures and Facilities

Analysis:

The application meets the minimum requirements of R645-301-521.120 which require a map that clearly shows the location of all buildings in and within a 1000 ft of the proposed permit area, along with identifying the current use of said buildings. Such information is provided on Drawing 2.2.7-7 and discussed in Chapter 2 section 2.12.2. No changes were made to the MRP text in section 2.12.2 at the time of this amendment.

cparker

Maps Existing Surface Configuration

Analysis:

The application meets the minimum requirements of R645-301-521.150 as it includes a drawing or plate that clearly calls out the existing surface of the entire mine permit and adjacent area. The application included updates to such information on plates 1.6-3 and 1.6-3A to include the Swens Canyon ventilation facility.

cparker

Maps Mine Working

Analysis:

The application does not meet the minimum requirements of R645-301-521.140 which requires maps that clearly show all mine plans. Plate 3.3-2 Rev10 clearly show proposed mining operations to meet said regulations, however, the operations show planned mining outside the current lease and permitted area. The Skyline mine recently acquired the Flat Canyon lease, however, the Flat Canyon lease area has not been permitted by the Division for mining operations. As discussed with the Permittee previously in an email sent August 26, 2015, the Permittee will add a note to all plates that include planned mining operations outside currently approved leases or permits stating, "Any projected mining shown beyond existing lease boundary lines is subject to future lease modifications and approvals."

For the purposes of the Swens Canyon ventilation facility plate 3.3-2 Rev10 will be amended to include the following note:

"Any projected mining shown beyond existing lease boundary lines is subject to future lease modifications and approvals."

Maps Monitoring and Sampling Locations

Analysis:

The information provided and contained within the currently approved MRP is sufficient to meet the requirements of the State of Utah R645-301 Coal Mining Rules.

Map 2.3.6-1 has been updated to include the new surface water monitoring point, CS-28, on Swens Creek.

adaniels

Maps Permit Area Boundary

Analysis:

The application meets the minimum requirements of R645-301-521.140 as relevant permit boundary drawings were updated within the application to detail the new permit boundary, lease boundary, and adjacent areas to the current mine plan. Plate 1.6-3 details the updated permit boundary, current lease boundary, and adjacent areas to include the Swens Canyon ventilation facility. The pad and power line corridor are located within the permit boundary of the current leases held by Canyon Fuel Company. The fan installation at Swens Canyon will be utilized for mining operations within the Flat Canyon Lease area, which has yet to be approved by the Division.

cparker

Maps Subsurface Water Resources

Analysis:

The information provided and contained within the currently approved MRP is sufficient to meet the requirements of the State of Utah R645-301 Coal Mining Rules.

This application did not require any updates to subsurface water resource mappings.

adaniels

Maps Surface and Subsurface Manmade Features

Analysis:

The application meets the minimum requirement of R645-301-521.122 as the application includes a drawing or plate that clearly calls out the existing surface and subsurface man made features within, passing through, or passing over the permit area. R645-301-521.120 through-521.125 require maps to clearly show existing surface and subsurface facilities. Plate 1.6-3A was updated within the application to show the surface and sub surface man made features that would include the Skyline buried pipe and power lines in the Swens Canyon area.

cparker

Maps Surface and Subsurface Ownership

Analysis:

The application meets the minimum requirements of R645-301-521.130 which requires landowners, right of entry, and public interest maps. Chapter 1 details the ownership and control information for the current Skyline mine lease areas. Drawing 1.6-1 details the surface ownership within the Skyline permit and adjacent areas. Drawing 1.6-2 details the coal ownership within the Skyline permit and adjacent areas. The current application contemplates modifications to areas already incorporated within the existing Skyline permit and adjacent areas and changes were made Drawings 1.6-1 and 1.6-2 to include the Swens Canyon ventilation pad and power line disturbances. Chapter 1 edits were made to add the surface disturbance associated with the Swens Canyon pad and powerline to the permit area.

cparker

Maps Surface Water Resource

Analysis:

The information provided and contained within the currently approved MRP is sufficient to meet the requirements of the State of Utah R645-301 Coal Mining Rules.

Maps already contained within the approved MRP display all relevant surface water resources associated with this application. There is a perennial stream, Swens Creek, that runs just to the south of the proposed facility. There are no proposed disturbances to this creek.

adaniels

Operation Plan

Mining Operations and Facilities

Analysis:

The application meets the minimum requirements of R645-301-523, -526, and 528 by addressing the Swens Canyon Ventilation facility in Chapter 2 Section 2.2.13 and Chapter 3 Section 3.2.

The application meets the minimum requirements of R645-301-523 by updating relevant Chapter 3 sections 3.2.4 and 3.2.1 changes to included the description of the Swens Canyon ventilation and power line. The majority of Chapter 3 remained unchanged detailing 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.

cparker

Existing Structures

Analysis:

The application meets the minimum requirements of R645-301-526 by no changes in the information to include the discussion of the existing buildings already approved within the MRP.

cparker

Protection Public Places

Analysis:

As evidenced by the land use map (2.12.1-1) and section 4.41 of the MRP, there are no public parks, cultural or historical resources listed or eligible for listing in the National Register of Historic Places, cemeteries, National System of Trails or the Wild and Scenic Rivers Systems, in the permit or adjacent area.

Information provided in the MRP meets the minimum requirements of R645-301-411.

lreinhart

Relocation or Use of Public Roads

Analysis:

The application meets the minimum requirements of R645-301-521.133 due to no change in the information detailing measures to be used such as a general mining method that will be employed under or within 100 ft of public roads to protect interest of the public in Chapter 2 Section 2.12.2.

cparker

Air Pollution Control Plan

Analysis:

The Air Pollution Control Plan is described in Section 4.22 of the MRP. The referenced Approval Order, in exhibit 4.22-1 was updated by DAQ on 7/13/15 and must be incorporated into the MRP.

Information provided in the application meets the minimum requirements of R645-301-422. However, the permittee must update the new Approval Order in exhibit 4.22-1.

Deficiencies Details:

Information provided in the application meets the minimum requirements of R645-301-422. However, the permittee must update the new Approval Order in exhibit 4.22-1.

Ireinhardt

Coal Recovery

Analysis:

The application meets the minimum requirements of R645-301-522 due to no change in Chapter 3 in regards to the discussion of the measures to be used to maximize the use and conservation of the coal resources.

cparker

Subsidence Control Plan Renewable Resource

Analysis:

The minimum requirements of R645-301-525.130 are met in the application as the Permittee followed the subsidence plan for protected areas. Changes were made to Chapter 4 Section 4.17 detailing that a pre-subsidence survey was conducted over the Flat Canyon Lease area to insure that no adverse effect from subsidence would impact public road SR-264, the ventilation shaft and pad, and the power line. Plate 4.17-3-1A was updated to illustrate the anticipated areas of subsidence within the Flat Canyon Lease area.

cparker

Subsidence Control Plan Subsidence

Analysis:

The minimum requirements of R645-301-525.400 are met in the application as the Permittee presented a clear subsidence plan for protected areas. Text was added to Chapter 4 Section 4.17 detailing that the subsidence control plan was followed by conducting a pre-subsidence survey of the area prior to any mining operations. Plate 4.17-3-1A was update showing the areas of expected subsidence in the proposed Flat Canyon Lease mining area.

cparker

Subsidence Control Plan Performance STD

Analysis:

The application meets the minimum requirements of R645-301-525.300 due to no change in the discussion in Chapter 4 Section 4.17.3 that addresses the measures the Permittee will utilized to minimize and prevent subsidence in protected areas.

cparker

Subsidence Control Plan Notification

Analysis:

The minimum requirements of R645-301-525.700 are met in the application as the Permittee presented a clear subsidence plan for protected areas that includes the appropriate notification at least six months prior to mining in Chapter 4 Section 4.17. No changes were made to the notification section of the MRP within this amendment due to no additional new owners or effected parties.

cparker

Subsidence Control Plan Slides and Other Damage

Analysis:

The application meets the minimum requirements of R645-301-515.100 with procedures already described within the existing MRP detailing the emergency contact procedures in the event of a slide. No changes were made to MRP text in relation to the Swens Canyon ventilation facility.

cparker

Fish and Wildlife Protection and Enhancement Plan

Analysis:

The application states there will be no impact to the adjacent stream. The disturbance of the shaft area will be a minimum of 350 north of the creek. Silt fencing or BMP's will also be used along the road to minimize any debris from entering Swens Canyon Creek thus disturbing the benthic community.

As indicated on page 4-102 of the MRP, power transmission lines must be designed to protect avian species. A diagram of the poles and lines must be submitted showing how they will be constructed to protect avian species from electrocution. Please note the guidelines referenced in the MRP have been updated since 1970.
http://www.dodpif.org/downloads/APLIC_2006_SuggestedPractices.pdf.

Due to the area being crucial summer mule deer fawning habitat and crucial summer elk calving habitat, construction activities must account for disturbance to these species at this critical time. The permittee must commit to adhering to any seasonal restrictions issued by the land management agency and identify what those restrictions are.

As the Raptor survey indicates, Western Toad (Utah Sensitive Species) surveys were conducted along the Granger Ridge area, which is approximately 5 miles away. They were not conducted in the wetland area adjacent to the shaft. If Western Toad is present in the area, the permittee must commit to protection measures.

The application fails to address any impacts because of increased vehicular traffic and human activity at the ventilation facility.

Deficiencies Details:

Information provided in the application is not considered adequate to meet the minimum requirements of the regulations. Prior to approval, the permittee must provide the following in accordance with: R645-301-333

A diagram of the power poles and lines must be submitted showing how they will be constructed to protect avian species from electrocution.

The permittee must commit to adhering to any seasonal restrictions issued by the land management agency.

If Western Toad is present in the area, the permittee must commit to protection measures.

The application must address any potential impacts of increased vehicular traffic and human activity at the ventilation facility.

Ireinhart

Topsoil and Subsoil

Analysis:

Analysis:
The application does not meet the requirements of R645-301-230, soils handling operation plan.

At Swen's Canyon, 6.8 acres will be disturbed, although 9.7 acres is included in the permit area (Sec 2.1 and Sec 2.9). The Swen's Canyon facility will include construction of an access road; two vertical shafts: a 16 foot diameter escapeway and a 6 or 8 foot diameter exhaust shaft, without a fan (Sec. 2.2, p. 2-21b and Sec 2.9.7 and p. 3-31b); a sediment pond to contain drill cuttings (Sec 2.3 and p 3-21 and p. 3.2.2); a topsoil stockpile; a topsoil sediment basin (ASCA 41, electronic page 56) and the installation of a transformer.

Chap 2, Sec 2.12. Chap 3, Sec. 3.2. Chap. 4 Section 4.6 (p. 4-34a) and Dwg 3.2.4-4F describe the soils handling during construction of the pad. Topsoil will be removed from a depth of 1 foot to 1.5 feet. Another 1.5 feet of subsoil will be removed. Page 2-120(1) further refines the plan describing 16 inches of topsoil and 27 inches subsoil removal from the Hailman soil and 10 inches topsoil and 31 inches subsoil removal from the Kamack soil. Plate 3.2.4-4F maps the topsoil removal depths but these depths do not correlate to the statements on page 2-120(1) or page 4-34a.

The plan states that efforts will be made to segregate topsoil and subsoil (p. 4-34a). However, the plan does not show segregation of topsoil and subsoil on the facilities layout Dwg 3.2.4-4A. One foot of topsoil and 1.5 feet of subsoil over the 6.8 acres will generate 7,421 CY of topsoil and 11,132 CY of subsoil. The soil salvage map indicates that greater than one foot of soil can be recovered from approximately half of the area. So there does not appear to be a deficit of topsoil. The Division questions the need for salvage of subsoil, because storage of the additional subsoil will create additional disturbance and a larger stockpile. It is preferable to salvage all the available topsoil from the site and stockpile it in a shallow pile with gentle side slopes that can be vegetated.

The topsoil stockpile area is shown on Plate 3.2.4-4F. It has a capacity of 16,400 CY. The topsoil area ASCA 41 is shown on Plate 3.2.4-4D. The plans state that soil collected in the sediment basin will either be re-applied to the pile or utilized at final reclamation. The plan is vague concerning the protection of the topsoil pile from erosion and should describe a method of sediment control that will keep the pile intact.

The topsoil pile will cover an area 120 x 60 ft. (Dwg 3.2.4-4A). The topsoil pile will be 20 ft deep at its greatest depth. It appears from the cross-sections that the south facing slope of the pile will be 2h:1v (Dwg 3.2.4-4B).

Establishing vegetation on the topsoil pile is alluded to in the description of ASCA 41. An interim seed mix is listed in Table 4.7-8F (p. 4-58f) that would likely be applied. This is a mix of four grasses and two forbes. Neither of the forbes are nitrogen fixing. Please consider adding a nitrogen fixing legume into the interim mix will improve the quality of the subsoil and topsoil in the long term.

The Swens Canyon application describes a 2.62 mile powerline (Sec 2.9.7) which will disturb a 15 ft wide swath along its length. (The total powerline disturbance is 4.8 acres.) The powerline is a 3-phase, 12.5 kV, single pole line with adaptation for raptors. No road building is involved in construction of the powerline and no topsoil will be salvaged. To minimize visual impact, the powerline will be buried under Huntington Creek (p. 2-68 and p2-131) for a distance of 0.3 miles (App. A2). The information provided does not meet the requirements of 232.400, for powerline construction, because along 0.3 miles there will be substantial surface disturbance. The plan should describe how the topsoil will be protected and replaced during powerline burial along the 0.3 mile section.

Deficiencies Details:

Deficiencies:

R645-301-121.200, Plate 3.2.4-4F maps the topsoil removal depths but these depths do not correlate to the statements on page 2-120(1) or page 4-34a.

R645-301-232.300, The soil survey indicates that there will be adequate volume of topsoil for reclamation. The Division questions the need for salvage of subsoil, because storage of the additional subsoil will create additional disturbance and a larger stockpile. It is preferable to salvage all the topsoil from the site and utilize the area designated for the stockpile to create a shallow pile with gentle side slopes that can be vegetated.

R645-301-234.230, Establishing vegetation on the topsoil pile is alluded to in the description of ASCA 41. An interim seed mix is listed in Table 4.7-8F (p. 4-58f) that would likely be applied. This is a mix of four grasses and two forbes. Neither of the forbes are nitrogen fixing. Please consider adding a nitrogen fixing legume into the interim mix will improve the quality of the subsoil and topsoil in the long term.

R645-301-230 and R645-301-243, The plan must include a testing plan to evaluate the results of topsoil handling and reclamation procedures related to vegetation. The plan is vague concerning the protection of the topsoil pile from erosion and should describe a method of sediment control that will keep the pile intact (silt fence, berm, excelsior logs etc. surrounding the pile).

R645-301-232.400, The plan should describe how the topsoil will be protected and replaced during powerline burial along the 0.3 mile section.

R645-301-242.200, The plan should describe ripping of compacted areas (such as roads and other surfaces) prior to topsoil replacement.

Vegetation

Analysis:

The disturbance has been reduced to the smallest practical area. Section 2.9.7 indicates there will be minimal disturbance along the powerline corridor since there will be no roads established and access is limited to rubber-tired or tracked vehicles.

Findings: Information provided in the application meets the minimum requirements of R645-301-331

Ireinhart

Road Systems Classification

Analysis:

The application meets the minimum requirements of R645-301-527.100 by classify each road as primary or ancillary. Chapter 4 Section 4.20.5 was updated to detail the additional ancillary roads associated with the Swens Canyon ventilation facility. A pre-existing road will be temporary realigned to create the access road for the pad.

cparker

Road System Plans and Drawings

Analysis:

The application meets the minimum requirements of R645-301-534.100 by submitting plans and drawing for each road to be maintained within the permit area. Plate 3.2.4-4A includes road cross section typical at bottom of the figure. Earthfax was retained by the Permittee to design the roads associated with the Swens Canyon ventilation facility. The geotechnical report supplied in Appendix D details that the road will have a minimum width of 17 feet, with an outside radius of 90 feet around the curves. The road surface will be constructed from road base or similar material with drainage along the road designed to safely convey storm water from a 10-year, 6-hour event. The maximum slope of the road will not exceed 7.25%.

The application does not meet the minimum requirements of R645-301-521.170, -534.150 that requires each permit application to describe each road. The description will include a map, appropriate cross sections, and specification for each road width, road gradient, road surface, road cut, fill embankment, culvert, bridge, drainage ditch, drainage structure. The Permittee failed to call out the swale described in the MRP text on plate 3.2.4-4A and on the appropriate cross section on plate 3.2.4-4B. Cross section E-E' on plate 3.2.4-4B is also missing the pad elevation.

Deficiencies Details:

The application does not meet the minimum requirements of R645-301-521.170, -534.150 that requires each permit application to describe each road. The description will include a map, appropriate cross sections, and specification for each road width, road gradient, road surface, road cut, fill embankment, culvert, bridge, drainage ditch, drainage structure. The Permittee failed to call out the swale described in the MRP text on plate 3.2.4-4A and on the appropriate cross section on plate 3.2.4-4B. Cross section E-E' on plate 3.2.4-4B is also missing the pad elevation.

cparker

Road System Performance Standards

Analysis:

The application meets the minimum requirements of R645-301-534.150 by submitting plans and drawing for each road to be maintained within the permit area to prevent and control erosion. Cross section of the various road typical show appropriate road drainage along the length of the pad access road.

cparker

Road System Certification

Analysis:

The application meets the minimum requirements of R645-301-521.170 by submitting plans and drawing for each road to be prepared by or under the direction of and certified by a qualified registered professional engineer. Plate 3.2.4-4A contains appropriate cross sections and is stamped by PE Richard White.

cparker

Road System Other Transportation Facilities

Analysis:

The application meets the minimum requirements of R645-301-521.170 by updating the relevant plates to detail the power line corridor that will be associated with the Swens Canyon ventilation facility. Plate 1.6-3A details the location of subsurface lines associated with the power line. No changes made to the already approved plans and drawing for each conveyor, and rail system to be used within the proposed permit area.

cparker

Spoil Waste Disposals of Noncoal Mine Wastes

Analysis:

The application meets the minimum standards of R645-301-528.330 due to no changes in the MRP text noncoal mine waste disposal located in the current MRP.

cparker

Spoil Waste Coal Mine Waste

Analysis:

The application meets the minimum standards of R645-301-528.320 due to no changes in the MRP text in regards to spoil and coal mine waste placement.

cparker

Spoil Waste Refuse Piles

Analysis:

The application meets the minimum standards of R645-301-528.322 due to no changes in the MRP text in regards to refuse piles at the Skyline mine.

cparker

Spoil Waste Impounding Structures

Analysis:

The application meets the minimum standards of R645-301-533 due updates within Chapter 3 Section 3.2.1 of the MRP text detailing the impoundments at the Swens Canyon ventilation facility for the topsoil pile.

cparker

Spoil Waste Burning and Burned Waste Utilization

Analysis:

The application meets the minimum standards of R645-301-528.323 due to no changes in the MRP text in regards to burning and burned waste utilization.

cparker

Spoil Waste Coal Processing Waste to Abandoned

Analysis:

The application meets the minimum standards of R645-301-528.340 due to no changes in the MRP text in regards to

returning waste to abandoned underground workings.

cparker

Spoil Waste Excess Spoil

Analysis:

The application meets the minimum standards of R645-301-535 due to no changes in the MRP text in regards to excess spoil.

cparker

Hydrologic Ground Water Monitoring

Analysis:

The information provided and contained within the currently approved MRP is sufficient to meet the requirements of the State of Utah R645-301 Coal Mining Rules.

There is no additional ground water monitoring required with the disturbance associated with the proposed Swens Canyon Ventilation Facility. As state in the application, there are no springs in the area of the disturbance.

adaniels

Hydro Surface Water Monitoring

Analysis:

The information provided and contained within the currently approved MRP is not sufficient to meet the requirements of the State of Utah R645-301 Coal Mining Rules.

CS-16 is a monitoring location on Swens Creek that is already part of the Skyline water monitoring program. This point has been monitored since 2001. This point will provide a downstream of disturbance monitoring location. CS-28 will be added to Swens Creek above the proposed disturbance. This point has been added to Plate 2.3.6-1 but has not been added to the operational water monitoring tables 2.3.7-1 and 2.3.7-3.

These two stream monitoring locations should give a clear indication if there is any impact occurring to Swens Creek.

Deficiencies Details:

R645-301-731.220 Stream monitoring location CS-28 (as shown on Plate 2.3.6-1) should be included on Tables 2.3.7-1 and 2.3.7-3 of the MRP.

adaniels

Hydrologic Acid and Toxic forming Materials

Analysis:

The information provided and contained within the currently approved MRP is sufficient to meet the requirements of the State of Utah R645-301 Coal Mining Rules.

Any cuttings from the shafts will be placed in the cuttings plan, and then used to backfill the shafts during reclamation.

adaniels

Hydrologic Transfer Wells

Analysis:

The information provided and contained within the currently approved MRP is sufficient to meet the requirements of the State of Utah R645-301 Coal Mining Rules.

There are no proposed wells within this application.

adaniels

Hydrologic Discharge Into an Underground Mine

Analysis:

The information provided and contained within the currently approved MRP is not sufficient to meet the requirements of the State of Utah R645-301 Coal Mining Rules.

The Permittee should clarify in the application whether any storm water runoff will drain into the shaft, or if there will be some kind of structured vent opening that will prevent runoff from draining into the underground opening.

Deficiencies Details:

R645-301-731.500 The Permittee should clarify in the application what will prevent storm water runoff from draining into the shaft opening.

adaniels

Hydrologic Gravity Discharge From Underground Mine

Analysis:

The information provided and contained within the currently approved MRP is sufficient to meet the requirements of the State of Utah R645-301 Coal Mining Rules.

The proposed vent and escape shaft are vertical shafts that will prohibit any type of mine discharge.

adaniels

Hydrologic Water Quality Standards

Analysis:

The information provided and contained within the currently approved MRP is sufficient to meet the requirements of the State of Utah R645-301 Coal Mining Rules.

The Permittee has proposed using ASCAs to control disturbed runoff from leaving the site. These ASCAs employ ditches, berms and sedimentation areas to prevent untreated water from leaving the disturbed area. The application does not call for the use of any UPDES outfalls. See Hydrologic Sediment Control Measures for further analysis.

adaniels

Hydrologic Diversion General

Analysis:

The information provided and contained within the currently approved MRP is sufficient to meet the requirements of the State of Utah R645-301 Coal Mining Rules.

The ventilation facility is located on the top of a hill, and there are no ephemeral, intermittent, or perennial streams that will required diverting through or around the site.

adaniels

Hydrologic Diversion Perennial and Intermitten

Analysis:

The information provided and contained within the currently approved MRP is sufficient to meet the requirements of the State of Utah R645-301 Coal Mining Rules.

See analysis under "Diversion General".

adaniels

Hydrologic Stream Buffer Zones

Analysis:

The information provided and contained within the currently approved MRP is not sufficient to meet the requirements of the State of Utah R645-301 Coal Mining Rules.

The Permittee has not addressed the stream buffer zone rules within the application.

Deficiencies Details:

R645-301-731.600 The application should address the stream buffer zone rules. Currently, it appears that there will be disturbance closer than 100 feet from Swens Creek.

adaniels

Hydrologic Sediment Control Measures

Analysis:

The information provided and contained within the currently approved MRP is not sufficient to meet the requirements of the State of Utah R645-301 Coal Mining Rules.

The analysis of proposed sediment controls for the Swens Canyon Ventilation Facility will be broken into the following four categories: Cuttings Pond, Vent Pad, Topsoil Pile, and Access Road.

Cuttings Pond Analysis:

The Permittee has proposed a cutting pond for the north end of the facility. This pond will receive approximately 13,000 CY of cutting material, which will be approximately 50% water. The cuttings will be allowed to dry and will end up with a volume of approximately 6,500 CY. This material will remain in the pond. The pond will also receive storm water runoff from watersheds UW-2 and DW-1 as displayed on Plate 3.2.4-4D. For a more detailed design analysis of the impoundment, see section "Hydrologic Impoundment".

Vent Pad Analysis:

This area is proposed as ASCA Area 40. Area 40 is described in Section 3.2 as a combination of undisturbed (UW-3) and disturbed (DW-3) area totaling 1.5 acres. The MRP explains that the sediment from this area is controlled by a small catch basin located at the southern end of the pad, but this is not displayed on the maps, and it is unclear how drainage from this area will be controlled with a swale, so that it doesn't flow out of the ASCA area and down the facility access road. The sediment controls for this area need to be clarified. Also, Plate 3.2.4-4D indicates that sediment controls on the west side of the pad (DB-2) will either be a berm or a silt fence. This should be clarified before the ASCA can be approved.

Topsoil Pile Analysis:

The topsoil pile will be surrounded by berms UB-2, DB-1, and DB-3. These berms will direct any runoff from the topsoil pile to a small basin on the southwest side of the stockpile. From here, if any topsoil has eroded it can be placed back on the topsoil pile. It appears from the design and drawings of this pile, that any runoff from topsoil pile will be contained to prevent drainage from leaving the pile. The EarthFax engineering report provides calculations for these berms and indicates that they were designed to safely convey the runoff from a 100 year, 24 hour storm event.

Access Road Analysis:

The access road to the facility will be lined with ditches DD-1, DD-2, and DD-3. To convey runoff away from the road, there are also three culverts, C1, C2, and C3. These ditches and culverts have been designed to convey runoff from a 10 year, 6 hour storm event. The culverts will be HDPE material and be 18 inch in diameter. The calculations for the culverts are provided in the EarthFax report.

Deficiencies Details:

R645-301-742.240, R645-301-742 The sediment controls for the proposed ASCA Area 40 (the pad site) should be clarified. The map and reports indicated that the west side of the facility will be controlled by a berm or a silt fence. The plan should indicate what will specifically be used.

The plan also indicates that the drainage will be controlled at the south end of the site by a swale and directed to the cut berm, but while the maps give a detail of the swale, it is not clearly marked where this will be placed on the maps.

Hydrologic Exemptions

Analysis:

The information provided and contained within the currently approved MRP is sufficient to meet the requirements of the State of Utah R645-301 Coal Mining Rules.

The permittee has proposed using two ASCAs, Area 40 and 41 to control and treat storm water. For further analysis and deficiencies, see Hydrologic Sediment Control Measures.

adaniels

Hydrologic Discharge Structures

Analysis:

The information provided and contained within the currently approved MRP is not sufficient to meet the requirements of the State of Utah R645-301 Coal Mining Rules.

For analysis and deficiency, see section "Hydrologic Impoundments".

adaniels

Hydrologic Impoundments

Analysis:

The information provided and contained within the currently approved MRP is not sufficient to meet the requirements of the State of Utah R645-301 Coal Mining Rules.

The cuttings ponds for the ventilation facility will be in place throughout the life of the operating facility. The ponds will also receive a small amount of runoff from watersheds UW-2 and DW-1 as displayed on Plate 3.2.4-4D. Pond cross sections are also displayed on Plate 3.2.4-4C.

The pond is designed to contain the cuttings from the shaft drilling process. These cuttings will have a maximum wet volume of 13,000 CY (6,500 CY dry). The pond has been designed to contain the runoff from a 10 year, 24 hour storm event (430 CY) and one year of accumulated sediment from watersheds UW-2 and DW-1. The impoundment design is detail further in the EarthFax engineering report included in the application.

The application goes on to state that the pon has been designed to convey the peak flow from a 25 year, 6 hour storm event immediatly following a 10 year, 24 hour storm event via the design of the emergency spillway. They indicate that the spillway is detailed on Plate 3.2.4-4C, but during review, this could not be found.

The Permittee should provide a detailed drawing of the emergency spillway, how it will be constructed to meet R645-301-743.131, and where it will be located on the pond.

On page 4-83 of the proposed MRP the application states referring to the cuttings pond ""It will be inspected for structural integrity on a frequency similar to the other sedimentation ponds."" Per R645-301-514.320, the pond inspections need to follow the same inspection schedule as the other permitted Skyline ponds.

Deficiencies Details:

R645-301-743.131 The Permittee should provide a detailed drawing of the emergency spillway, how it will be constructed to meet R645-301-743.131, and where it will be located on the pond.

R645-301-514.320 On page 4-83 of the proposed MRP it states (referring to the cuttings pond) "It will be inspected for structural integrity on a frequency similar to the other sedimentation ponds." Per R645-301-514.320, the pond inspections need to follow the same inspection schedule as the other permitted Skyline ponds. Verbiage should be added to the MRP making this clear.

adaniels

Support Facilities and Utility Installations

Analysis:

The application meets the minimum requirements of R645-301-521.180 and -526 that require a description, plans, and drawings for each support facility to be constructed, used, or maintained within the proposed permit area. Chapter 3 Section 3.2.4 was updated to detail the general purpose and function of the Swens Canyon ventilation facility. The Earthfax geotechnical report was included in Appendix D of the application. The report found that the field investigation generally encountered Sandy Loam topsoil on top of fractured sandstone with a shale bedrock. The report states on page 13, "The actual rock structure of the shale bedrock is unknown and should be evaluated during construction."

Slide 5.0 was utilized to develop a slope stability analysis from the Long Resource field investigation for the topsoil pile, access road and pond. The stockpile will be constructed to a maximum height of 20 feet with a maximum side slope of 2H:1V. The pond will be constructed to an inner slope of 17 feet at a 3H:1V, a crest of maximum 17 feet, and an outer slope of 52.3 feet at a 2H:1V. All analysis results show a minimum factor of safety against slope failure of the topsoil stockpile to be 1.9. The minimum factor of safety for the sediment basins and pond without ponded water is 2.3. The sediment basin and pond embankment factor of safety, under rapid drawdown is 5.4. The minimum factor of safety for the road side slope is 3.3.

Deficiencies Details:

R645-301-521.180, -526.220 require a description, plans, and drawing for each support facility to demonstrate compliance with preventing erosion, damage to public or private property and minimize damages to environmental values. The Permittee failed to supply details of the surface of the ventilation shaft such as the extent above grade and cover material. The Permittee failed to detail how the shaft will be constructed, i.e. raised bore drilling, and if blasting will be implemented. The Permittee will add text to Chapter 3 Section 3.2.4 clarifying the extent above grade the ventilation shaft will extend, and how the shaft will be constructed such as if a raised bore drill will be used and/or if blasting will be expected. In the event blasting is utilized, the Permittee does not have a Division approved Blasting Plan and may only utilize explosives less than five pounds. In the event explosive larger than five pounds are required the Permittee must submit an amendment to the MRP detailing how the R645-301-524 regulations are met.

R645-301-514.312 requires inspection by a professional engineer will promptly provide to the Division a certified report that the impoundment has been constructed and maintained as designed. Due to the technical aspect of the recommendations stated in the Earthfax Geotechnical report the Division requires language be added into the MRP Chapter 3.2.4 pg 3-31(b) detailing that a certified inspection report will promptly be provided to the Division upon the completion of the Swens Canyon ventilation pad detailing that pad was indeed constructed to design and all assumptions made in the Earthfax geotechnical report are still valid, as detail in Chapter 3 page 3-58 of the existing MRP. The report will include common Quality Control/Quality Assurance measures used in the construction industry, such photography and compaction tests.

cparker

Signs and Markers

Analysis:

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

cparker

Explosives General

Analysis:

The application meets the minimum requirements of R645-301-524 by no changes made to the blasting plan of the MRP Chapter 3 Section 3.2.9. within the application. The Skyline mine currently does not have an approved blasting plan and may not utilize explosive larger than five pounds on the site.

cparker

Explosives Preblasting Survey

Analysis:

The application meets the minimum requirements of R645-301-524.300 by no changes made to of the MRP Chapter 3

Section 3.2.9. within the application. The Skyline mine currently does not have an approved blasting plan and may not utilize explosive larger than five pounds on the site.

cparker

Explosives General Performance Standards

Analysis:

The application meets the minimum requirements of R645-301-524.430 by no changes made to MRP Chapter 3 Section 3.2.9 within the application. The Skyline mine currently does not have an approved blasting plan and may not utilize explosive larger than five pounds on the site.

cparker

Explosives Blasting Signs Warnings Access Control

Analysis:

The application meets the minimum requirements of R645-301-524.460 and -524.530 by no changes the MRP Chapter 3 Section 3.2.9. The Skyline mine currently does not have an approved blasting plan and may not utilize explosive larger than five pounds on the site.

cparker

Explosives Control of Adverse Effects

Analysis:

The application meets the minimum requirements of R645-301-524.600 by no changes made to the MRP Chapter 3 Section 3.2.9. The Skyline mine currently does not have an approved blasting plan and may not utilize explosive larger than five pounds on the site.

cparker

Explosives Records of Blasting Operations

Analysis:

The application meets the minimum requirements of R645-301-524.700 by no changes made to the MRP Chapter 3 Section 3.2.9. The Skyline mine currently does not have an approved blasting plan and may not utilize explosive larger than five pounds on the site.

cparker

Maps Affected Area

Analysis:

The application meets the minimum requirements of R645-301-521.100 through-521.130 by updating all the relevant maps for the entire area shown on the mine plan as detailed on plates 3.2.4-4A through 3.2.4-4F and 1.6-3.

The application meets the minimum requirements of R645-301-521.110. R645-301-521.110 requires previously mined areas to be shown on Drawing 2.2.7-7 and discussed in Chapter 2 section 2.12.2. No changes were made to the MRP text within the above section at the time of this amendment.

cparker

Maps Facilities

Analysis:

The application meets the minimum requirements of R645-301-521.120 through-521.125 which require maps to clearly show existing surface and subsurface facilities. The application included update plates 1.-3A, 3.2.4-4A through 3.2.4-4F detail all surface and sub surface facilities related to the Skyline mining operations.

cparker

Maps Mine Workings

Analysis:

The application does not meet the minimum requirements of R645-301-521.140 which requires maps that clearly show all mine plans. Plate 3.3-2 Rev10 clearly show proposed mining operations outside the current lease, which includes Flat Canyon. The Flat Canyon lease has been issued to the Skyline Mine but the Flat Canyon lease area has not been permitted by the Division. As discussed with the Permittee previously in an email sent August 26, 2015, the Permittee will add a note to all plates that details show planned mining operations outside currently approved leases or permits stating, "Any projected mining shown beyond existing lease boundary lines is subject to future lease modifications and approvals."

For the purposes of the Swens Canyon ventilation facility plate 3.3-2 Rev10 will be amended to include the following note:

"Any projected mining shown beyond existing lease boundary lines is subject to future lease modifications and approvals."

Deficiencies Details:

The application does not meet the minimum requirements of R645-301-521.140 which requires maps that clearly show all mine plans. Plate 3.3-2 Rev10 clearly show proposed mining operations outside the current lease, which includes Flat Canyon. The Flat Canyon lease has been issued to the Skyline Mine but the Flat Canyon lease area has not been permitted by the Division. As discussed with the Permittee previously in an email sent August 26, 2015, the Permittee will add a note to all plates that details show planned mining operations outside currently approved leases or permits stating, "Any projected mining shown beyond existing lease boundary lines is subject to future lease modifications and approvals."

For the purposes of the Swens Canyon ventilation facility plate 3.3-2 Rev10 will be amended to include the following note:

"Any projected mining shown beyond existing lease boundary lines is subject to future lease modifications and approvals."

cparker

Maps Monitoring and Sampling Locations

Analysis:

The information provided and contained within the currently approved MRP is sufficient to meet the requirements of the State of Utah R645-301 Coal Mining Rules.

Map 2.3.6-1 has been updated to include the new surface water monitoring point, CS-28, on Swens Creek.

adaniels

Maps Certification Requirements

Analysis:

R645-301-512 minimum requirements are met as all mine drawings and plates are stamped by a Utah certified professional engineer Richard B White, with experience in underground mining operations.

cparker

Reclamation Plan

General Requirements

Analysis:

The minimum requirements of R645-301-540 are met within the application due to updated Chapter 4 sections and plates 4.4.2-4A, 4.4.2-4B, and 4-9D that detail the Swens Canyon ventilation facility reclamation contours to AOC as a stable slope. Text was edited within Chapter 4 Section 4.9 also details how the mine opening of the ventilation shaft will be reclaimed as shown in Drawing 4-9D.

cparker

PostMining Land Use

Analysis:

The only narrative in the amendment is in Section 2.12 in which it states there will be minimal impact to the historical use. A complete discussion of the post mining land use is in Section 4.12 of the MRP. The SCVF should be added to section 4.12 and table 4.12-1 for clarity and consistency. The C-2 form indicates pages 4-78(a) was to be replaced to address post-mining land use but it does not meet the regulations.

Deficiencies Details:

Information provided in the application is not considered adequate to meet the minimum requirements of the R645-301-412 or R645-301-413. Prior to approval the permittee must update 4.12 of the MRP to include SCVF.

Ireinhart

WildLife Protection

Analysis:

Analysis: 2.9.7 states habitat disturbed by the SCVF will be revegetated at reclamation with increased forbs and grasses to provide better post mining habitat. The seed mix should be modified to enhance habitat as noted in the reclamation section of this review.

Findings: Information provided in the application meets the minimum requirements of R645-301-342 and R645-301-358

Ireinhart

Approximate Original Contour Restoration

Analysis:

The application meets the minimum R645-301-512.200 and -553.110 as there is no change in the MRP and all grading will be place back to approximate original contours. Plates 4.4.2-4 A and 4.4.2-4B detail the reclamation contours of the Swens canyon ventilation facility shown to match existing AOC.

cparker

Backfill and Grading General

Analysis:

Plate 4.4.2-4 A through B meet the minimum requirements of R645-301-553 detailing how AOC will be restored at the point of final reclamation of the Swens Canyon ventilation facility.

The minimum requirements of R645-301-553 are not met within the application as information regarding the Swens Canyon ventilation facility was not added to Chapter 4 Section 4.1.2 where similar discussion is currently present within the MRP regarding Winter Quarters. The Permittee did supply updated text within the grading section of Chapter 4 Section 4.4.2 to include the required information for backfilling of the Swens Canyon ventilation facility that meets the minimum R645-301-553 requirements.

Deficiencies Details:

The minimum requirements of R645-301-553 are not met within the application as information regarding the Swens Canyon ventilation facility was not added to Chapter 4 Section 4.1.2 where similar discussion is currently present within the MRP regarding Winter Quarters. The Permittee did supply updated text within the grading section of Chapter 4 Section 4.4.2 to include the required information for backfilling of the Swens Canyon ventilation facility that meets the minimum R645-301-553 requirements. The Permittee will add a similar discuss of Section 4.4.2 to Chapter 4 Section 4.1.2.

cparker

Backfill and Grading Previously Mined

Analysis:

The minimum requirements of R645-301-553.500 are met within the application as there is no change to the existing MRP grading reclamation details on previously mined areas.

cparker

Backfill and Grading on Steep Slopes

Analysis:

The minimum requirements of R645-301-553.130 are met within the application as there is no change to the existing MRP grading reclamation details on steep slopes.

cparker

Backfill and Grading Steep Special Provisions

Analysis:

The minimum requirements of R645-301-537 and -553 are met within the application as there is no change to the existing MRP grading reclamation details.

cparker

Mine Openings

Analysis:

Finding: This application meets the minimum regulatory requirements for backfilling and sealing of the Swens Canyon Vent Shafts as required by R645-301-631.
R645-301-631. Casing and Sealing of Exploration Holes and Boreholes. Each permit application will include a description of the methods used to backfill, plug, case, cap, seal or otherwise manage exploration holes or boreholes to prevent acid or toxic drainage from entering water resources, minimize disturbance to the prevailing hydrologic balance and to ensure the safety of people, livestock, fish and wildlife, and machinery in the permit and adjacent area.
Chapter 4 Section 4.9 contains the description of the Opening and Sealing Plan for the shafts. There are two shafts planned for construction that will ultimately require backfilling and sealing. The first is the Vent shaft which is 16 feet in diameter. The second shaft is an 8 foot shaft and will be an Escape shaft. Both shafts will be completely backfilled at the time of reclamation. There is a diagram labeled DWG #4.9-D that shows the backfill design. It shows rock, gravel, sand, bentonite and 5 feet of concrete and another bentonite layer. The rest of the shaft will then be filled with pit run gravel. This is approximately 855 feet for the vent shaft.

dhaddock

Mine Openings

Analysis:

The minimum requirements of R645-301-529,542.710 and -551 are met within the application as there is no change to the existing MRP sealing of mine openings at the time of final reclamation. Drawing 4-9D was added detailing how the Swens Canyon and ventilation shaft will be backfilled following all required regulations. Text within Chapter 4 Section 4.9 of the MRP was also added to detail the backfilling of the ventilation and escape shafts. Cuttings from the original drilling that will be stored in the impoundment on the pad will be utilized as backfill material.

cparker

Topsoil and Subsoil

Analysis:

Plates 4.4.2-4A and 4.4.2-4B show the final reclamation topography and cross-sections. The site and access road (p. 4-114a) will be brought to final grade which for the shafts means 20 ft above ground level (Section 4.9, p. 4-62a). After final grading, one foot of topsoil will be redistributed over 9.7 acres to be 15,600 CY (Table 4.6-4). Topsoil will be placed with a dozer and pocked with a trackhoe (Section 4.6.7). Final seed mix is listed in Table 4.7-8E. Noxious weeds will be controlled (Section 4.8.9).

Deficiencies Details:

R645-301-121.200, The plan describes disturbance of 6 acres in two locations (Sec 2.1 and 2.9) and the redistribution of one foot of topsoil over 9.7 acres in another (Table 4.6-4). Please be consistent on the acreage of disturbance.

R645-301-121.200, Please clarify whether the exhaust shaft will be 6 or 8 feet in diameter, see conflicting statements about the shaft on page 2-21b and 3-31b.

R645-301-242, All stockpiled material will be redistributed on the disturbed area. The plan describes salvage and stockpiling of subsoil, but does not include a plan for redistribution of the subsoil.

pburton

Road System Reclamation

Analysis:

The minimum requirements of R645-301-534 are met within the application as Chapter 4 Section 4.20.6 details that all pre-existing roads will be slightly rerouted while the ventilation facility if function but will be re-established in the original location at reclamation. Approximately 900 feet of access road to the pad will be removed during reclamation as shown on Plates 3.2.4-4A and 4.4.2-4A.

cparker

Road System Retention

Analysis:

The minimum requirements of R645-301-534 and -552 are met within the application as there is no change to the existing MRP reclamation of roads that will be retained at the end of mining that exist throughout the permitted area. Chapter 4 Section 4.20.6 details that all pre-existing roads will be slightly rerouted while the ventilation facility if function but will be re-established in the original location at reclamation.

cparker

Hydrological Information Reclamation Plan

Analysis:

The information provided and contained within the currently approved MRP is sufficient to meet the requirements of the State of Utah R645-301 Coal Mining Rules.

During reclamation, the facility structures will be removed. Any cuttings in the pond will be used to backfill the shafts, and the site will be returned to approximate original contour. The ditches, berms, and culverts will be removed.

adaniels

Contemporaneous Reclamation General

Analysis:

The scale of this project is not large enough to warrant contemporaneous reclamation.

Findings: Information provided in the application meets the minimum requirements of R645-301-352

ireinhart

Contemporaneous Reclamation General

Analysis:

The minimum requirements of R645-301-553 of backfill and grading are met within the application as there is no change to the existing MRP grading reclamation details.

cparker

Revegetation General Requirements

Analysis:

Section 4.7 of the MRP discusses the revegetation plan for the mine. A specific seed mix for this project is based on existing conditions with some modifications for habitat improvement. The seed mix should be modified to remove *Chrysothamnus nauseosus* (rubber rabbitbrush) and replace it with *Krasheninnikovia Guldenstaedt* (Winterfat) to further enhance habitat.

Deficiencies Details:

Information provided in the application meets the minimum requirements of R645-301-341, although the Division Biologist recommends the all seed mixes in the MRP be modified to remove *Chrysothamnus nauseosus* (rubber rabbitbrush) and replace it with *Krasheninnikovia Guldenstaedt* (Winterfat) to further enhance habitat. Rubber rabbitbrush is highly aggressive and outcompetes resources for other more desirable plants. At the precipitation level of the mine, other species are far more desirable for wildlife and livestock. Although this shrub has historically been used aggressively in reclamation to account for shrub densities, it provides little nutritional value to wildlife and remains a dominant species on the landscape for decades. Other shrubs (or half-shrubs) such as winterfat establish easily and provide more nutritional value to wildlife and livestock and should be considered as a substitute.

Pursuant to R645-301-121.200, the seed mixes in Tables 4.7-1 through 4.7-8 should be formatted consistently with both scientific name and common name. Scientific names change frequently and may lead to confusion at the time of bond release or final seeding.

Ireinhart

Revegetation Timing

Analysis:

Analysis: Interim vegetation is referenced on page 3-31 and table 4.7-8F, but there is no narrative describing when the interim seedmix will be planted and on what areas.

Deficiencies Details:

Information provided in the application is not adequate to meet the minimum requirements of the R645-301-354. Prior to approval, the permittee must provide a narrative that discusses interim and final revegetation.

Ireinhart

Revegetation Mulching and Other Soil Stabilization

Analysis:

Section 4.4.2 indicates the surface will be roughened with deep gouging. There is no reference to using suitable mulch or other stabilizing practices. Although Section 4.7.2 of the MRP includes mulching practices, it does not clearly apply to the Swens Canyon Vent Facility.

Deficiencies Details:

Information provided in the application is not considered adequate to meet the minimum requirements of R645-301-355. Prior to approval the permittee must either commit to using suitable mulch materials or provide evidence that it is not necessary to control erosion and aid in establishing an effective vegetative cover.

Ireinhart

Revegetation Standards for Success

Analysis:

The interim and final revegetation seed mixes are listed in Tables 4.7E and 4.78F. The seed mix contains native species that should result in a vegetative cover that is diverse, effective, and permanent. Noxious plants will be controlled by hand-grubbing and/or approved herbicides. Surveillance will be monitored annually during the liability period.

Findings: Information provided in the application meets the minimum requirements of the R645-301-353

Section 4.8.9 of the amendment suggests a reduced density of woody species (2,500 plants per acre) be used as a success standard at the proposed disturbed Sagebrush/Grass area. The Division Biologist concurs with the recommendation pursuant to R645-301-356.100. The suggestion must be made the standard so that it is clear come time of bond release evaluation.

Section 4.8.9 is incorrectly marked. Presumably, the correct section citation is 4.8.10 since Section 4.8 of the MRP is "Hazardous & Flammable Materials Disposal & Contingency Plan".

Deficiencies Details:

Information provided in the application is not considered adequate to meet the minimum requirements of R645-301-356. Prior to approval the permittee must clearly indicate 2,500 woody species per acre is the success standard. In accordance with R645-301-120, the section citation must be corrected.

ireinhart

Stabilization of Surface Areas

Analysis:

Areas disturbed by the pipeline will be watched for one growing season and repaired if necessary following the seeding described in Section 4.7 (p. 4-103B).

Surface roughening is described as a soil stabilization measure (Section 4.6.7). The use of mulch is also required by R645-301-244.100.

Deficiencies Details:

R645-301-244.100, The plan must describe protection of exposed surface areas during and after burial of the pipeline.

R645-301-244.200, Mulch must be used on all areas graded and covered with topsoil.

pburton

Cessation of Operations

Analysis:

The minimum requirements of R645-301-515 and -541 are met within the application as there is no change to the existing MRP plan of communication with the appropriate parties in the event of the cessation of operations and final reclamation.

cparker

Maps Affected Area Boundary

Analysis:

The minimum requirements of R645-301-542 are met within the application as updated reclamation maps were provided in regards to the reclamation of the Swens Canyon ventilation facility on plates 4.4.2-4A and 4.4.2-4B.

cparker

Maps Bonded Area

Analysis:

The minimum requirements of R645-301-800 are met within the application as the bonded area map was updated in Plate 1.6-3.

cparker

Maps Reclamation Backfilling and Grading

Analysis:

The minimum requirements of R645-301-542 are met within the application as there Plate 4.4.2-4A and 4.4.2-4B detail the required backfill and grading associated with the Swens Canyon Ventilation facility.

cparker

Maps Reclamation Facilities

Analysis:

The minimum requirements of R645-301-542 are met within the application as there is no change to the existing MRP plan of facilities that will remain post mining operations. All structures associated with the Swens Canyon ventilation facility will be reclaimed at final mine reclamation as detailed on Plate 4.4.2-4A.

cparker

Maps Reclamation Final Surface Configuration

Analysis:

The minimum requirements of R645-301-542 are met within the application as updated Plate 4.4.2-4A and 4.4.2-5B detail the final surface configuration back to AOC for the Swens Canyon ventilation facility along with all previous pre-existing roads will be returned to the original location.

cparker

Maps Reclamation Monitoring and Sample Locations

Analysis:

The information provided and contained within the currently approved MRP is sufficient to meet the requirements of the State of Utah R645-301 Coal Mining Rules.

Map 2.3.6-1 has been updated to include the new surface water monitoring point, CS-28, on Swens Creek.

adaniels

Maps Reclamation Surface and Subsurface Man Made

Analysis:

The minimum requirements of R645-301-542 are met within the application all surface man made features will be reclaimed and all subsurface manmade features within the permit area will be reclaimed below grade and sealed to applicable R645 regulations as shown on Plate 4.4.2-4A.

cparker

Maps Reclamation Certification Requirments

Analysis:

R645-3010-512 minimum requirements are met as all mine drawings and plates are stamped by a Utah certified professional engineer Richard White, with experience in underground mining operations.

cparker

Bonding and Insurance General

Analysis:

The application meets the minimum requirements of R645-301-800 as the applicant is current on the bond and insurance standings.

Bonding Form of Bond

Analysis:

The application meets the minimum requirements of R645-301-860.100 as the applicant currently maintains a surety bond amount of \$5,799,00 which is held by Lexon Insurance Co with a rider held by Ironshore Indemnity Inc.

cparker

Bonding Determination of Amount

Analysis:

The application meets the minimum requirements of R645-301-830.140 as the Permittee submitted detailed bond information in regards to the application. The demolition cost was increased to \$2161532 with the additional removal of the new Swens Canyon sheet for fence, building and concrete removal of \$22,573. The backfilling and grading total was increased to \$1,649,006 for the additional regrading out of the pad area and 900 feet of road for \$126,555. The shaft and escape shaft at the Winter Quarters ventilation facility were never built and were removed from the bond at this time bring the Winter Quarters subtotal to \$48,608. Drawing 3.2.4-3A through G show the Winter Quarters site only had one portal which remains bonded for in the amended sheet. The revegetation was increased \$440,016 was increased for the addition 9.7 acres of seeding.

cparker

Bonding Terms and Conditions Liability Insurance

Analysis:

The application meets the minimum requirements of R645-301-850 as the applicant currently holds liability insurance through National Union Fire Ins Co, effective until 2/1/16. The insurance includes the required Marsh from, explosives and claims made per occurrence.

cparker