



State of Utah

Department of
Natural ResourcesROBERT L. MORGAN
Executive DirectorDivision of
Oil, Gas & MiningLOWELL P. BRAXTON
Division DirectorOLENE S. WALKER
GovernorGAYLE F. McKEACHNIE
Lieutenant Governor

October 21, 2004

OK

Chuck Semborski, Environmental Supervisor
Energy West Mining Company
P.O. Box 310
Huntington, Utah 84528

Re: Volume 11: North Rilda Canyon Portal Facilities, Administrative
Completeness Review & Draft Technical Analysis, PacifiCorp, Deer Creek
Mine, C/015/0018, Task ID #2032, Outgoing File

Dear Mr. Semborski:

The North Rilda Canyon Portal Facilities significant revision has been reviewed and administrative completeness issues and technical deficiencies have been identified. At this time, the application is not administratively complete (a copy of our review worksheet is enclosed identifying the outstanding completeness deficiencies). A draft technical analysis has also been prepared and is enclosed.

We will be meeting with you to discuss the responses for these completeness and technical deficiencies during the week of November 1.

If you have any questions, please call me at (801) 538-5286 or Jim Smith at (801) 538-5262.

Sincerely,

D. Wayne Hedberg
Permit Supervisor

an
Enclosures – ACR Worksheet & Draft TA
cc: Alice Carlton
Jim Kohler
Pete Rutledge
Alison Garner
Luci Malin, w/o
Price Field Office
O:\015018.DER\FINAL\DEF2032.DOC

File in:

- Confidential
 Shelf
 Expandable

Refer to Record No. 0071 Date 10/21/2004
In C/015/0018, 2004, Outgoing

For additional information

**ADMINISTRATIVE COMPLETENESS REVIEW WORKSHEET
(R645-100)**

DATE: October 11, 2004

REVIEWER(S): Jim Smith, Jerriann Ernsten, Joe Helfrich, Wayne Western, Priscilla Burton

APPLICANT: PacifiCorp

MINE NAME: Deer Creek Mine **FILE NO.:** C/015/0018

"Administratively Complete Application" means an application for permit approval or approval for coal exploration, where required, which the Division determines to contain information addressing each application requirement of the State Program and to contain all information necessary to initiate processing and public review.

Directions: The categories listed below correspond to the minimum requirements for information necessary to initiate processing and public review. If a category is checked the Applicant has met the **Completeness** requirement for that category. If a category is not checked, the Completeness requirements have not been met. The comments column will identify the deficiency and what is necessary to correct it.

			Comments
301-112	Identification of Interests	<u>X</u>	NA - See the Supplemental Legal & Financial volume.
100	Applicant's Business Structure	<u>X</u>	NA - See the Supplemental Legal & Financial volume.
210	Applicant's Name/Address/Phone	<u>X</u>	NA - See the Supplemental Legal & Financial volume.
220	Resident Agent's Name/Address/Phone	<u>X</u>	NA - See the Supplemental Legal & Financial volume.
230	Name/Address/Phone of AML Fees Payer	<u>X</u>	NA - See the Supplemental Legal & Financial volume.
300	Corporate Structure & Ownership	<u>X</u>	NA - See the Supplemental Legal & Financial volume.
400	Identify Other Mining Operations in US	<u>X</u>	NA - See the Supplemental Legal & Financial volume.
500	Surface & Mineral Ownership	<u>X</u>	NA - See the Supplemental Legal & Financial volume.
600	Ownership Contiguous to Permit	<u>X</u>	NA - See the Supplemental Legal & Financial volume.
700	MSHA Numbers	<u>X</u>	NA - See the Supplemental Legal & Financial volume.
800	Interest in Contiguous Lands	<u>X</u>	NA - See the Supplemental Legal & Financial volume.

301-113	Violation Information	<u>X</u>	NA - See the Supplemental Legal & Financial volume.
100	Suspension or Revocation Information	<u>X</u>	NA - See the Supplemental Legal & Financial volume.
300	List of Violations - 3 Previous Years	<u>X</u>	NA - See the Supplemental Legal & Financial volume.
301-114	Right of Entry	<u>X</u>	NA - See the Supplemental Legal & Financial volume.
301-115	Status of Unsuitability Claims	<u>X</u>	Mining will be within 100 feet of a public road. Protection of topsoil is discussed in Sections R645-301-232 and -234, and buffer zones for the protection of riparian areas is discussed in Sections R645-301-500 and 731.600.
301-116	Permit Term	<u>X</u>	This is an amendment to an existing permit. See the Supplemental Legal & Financial volume.
301-117	Insurance	<u>X</u>	NA - See the Supplemental Legal & Financial volume.
	Proof of Publication	<u>X</u>	Publication is not required.
	Facilities and Structures Used in Common	<u>X</u>	There are no facilities or structures to be shared with another permitted facility.
301-118	Filing Fee	<u>X</u>	The North Rilda Canyon Portal Facilities will be within the existing Deer Creek Mine permit area. The fee for this permit has been paid by PacifiCorp.
301-123	Notarized Signature of Responsible Official	<u>X</u>	The C1 form has the notarized signature of Charles Semborski, Geology/Permitting Supervisor

301-130	Information Collection: Technical Data Accompanied by Names of Persons or Organizations that Collected and Analyzed the Data - Dates of Collections - and Analysis of the Data and Description of the Methodology Used to Collect and Analyze Data	—	See comments under various technical disciplines.
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301-200	Soils	<u>X</u>	
211	Description of Pre-mining Soil Resources	—	description of topsoil storage area is missing. Information on the characteristics of the Leroy mine soils missing (R645-301-222).
221	Prime Farmland Investigation	—	Missing documentation of NRCS opinion on north Rilda site.
222	Soil Survey	—	Missing soil survey of the topsoil storage area (R645-301-222).
224	Substitute Topsoil Info (When Proposed)	<u>NA</u>	
230	Operation Plan Topsoil Handling/Removal/Storage	—	Need narrative or map providing information on proposed configuration of topsoil and subsoil piles. ie. slope, max. height, reclamation technology to be used on stockpile to encourage rapid establishment of vegetation and to protect stockpile vegetation from grazing (R645-301-231.400 and 30 CFR 784.11 (b)). Need description of how topsoil beneath subsoil pile will be protected (R645-232.100 and 30 CFR 784.11 (b) (2)). Protection of topsoil beneath subsoil stockpile is an experimental practice (R645-302-210).
240	Reclamation Plan Soil Redistribution/Stabilization	—	Missing a soil testing plan for evaluation of the results of topsoil handling and reclamation procedures related to vegetation for entire site and area beneath topsoil and subsoil stockpiles (R645-301-231.300, R645-301-243 and 30 CFR 784.13 (5) (vii)). Cut/fills and redistribution found at R645-301-533, Table 500-2 and Maps 599-3 and 500-4.

301-300	Biology	<u>X</u>	Biology is addressed in chapter three of the application.
320	Vegetation Information	<u>X</u>	The amendment includes quantitative vegetation resource and productivity information to review.

322	Fish and Wildlife Information —	<p>The amendment includes a recent raptor survey and preliminary macroinvertebrates and fish survey to review. The amendment and MRP also includes previous information on big game and threatened and endangered (TE) plant and animals. The Permittee may need to update the TE information.</p> <p>Chapter three of the application includes a Wildlife Resources Report prepared by Terry Nelson and Pam Jewkes from the Manti-La Sal National Forest. Big Game species identified in the report include the Canada Lynx, Rocky Mountain Elk and Mule Deer. The report is a stand-alone document a portion of which describes the listed big game species their habitats and several alternatives with respect to the development of access routes to the School and Institutional Trust Lands Administration, (SITLA), properties located within the Manti-La Sal National Forest. The application does not include a discussion that correlates the Big Game species identified in this report with the proposed development in Rilda Canyon. If there is Big Game information in the MRP that is relevant to and encompasses the proposed disturbed area the permittee needs to provide a discussion that correlates the information with the proposed project area.</p> <p>The Permittee did not conduct the ground-truthing surveys for the Mexican Spotted Owl as previously requested. The amendment does not include a bat survey focusing on sensitive species..</p>
323	Maps/Photos Vegetation-Fish-Wildlife Areas —	The application does not include habitat maps for the big game species common to the proposed Rilda Canyon development area
330	Operation Plan Vegetation-Fish-Wildlife Protection —	<p>The Permittee conducts yearly raptor surveys. The 2004 survey was submitted for review.</p> <p>The amendment does not contain biology-related information in the operation plan concerning the new development to review.</p> <p>The amendment does not contain adequate information concerning mitigation plans as discussed during 8/13/2004 and 9/16/2004 meetings.</p> <p>The amendment does not address wildlife protection for Big Game species common to the proposed Rilda Canyon development area..</p>

341	Reclamation Plan for Revegetation	<u>X</u>	The amendment contains adequate information to review concerning revegetation.
342	Fish & Wildlife Plan for Reclamation Phase	—	The amendment does not contain adequate information to review concerning wildlife in addition to Big Game during the reclamation and post-reclamation phases. The application does not include a wildlife plan for Big Game species common to the proposed Rilda Canyon development area for the reclamation phase of operations..

301-400	Land Use and Air Quality	—	Missing information describing recent and past coordination with DAQ (R645-301-422 and 30 CFR 784.13 (9))
411	Pre-Mining Land Use Information (Includes Cultural Resources)	<u>X</u>	Senulis Sept. 2003 report contains the Historical evaluation of the area for review.
412	Post-Mining Land Use Information	<u>X</u>	The MRP contains adequate information concerning postmine land use for evaluation.

301-500	Engineering	—	
510 520	General Description of Operation Plan (Maps, Locations, Cross-Sections, Narrative, Descriptions & Calculations)	—	Several maps and cross section needed to complete the technical review were not included. The Permittee did not include a reclamation map for the 9.0 acre main facility and operational and reclamation maps for the 3.1 acre soil storage area.
522	Coal Recovery Description	<u>X</u>	NA
523	Mining Methods	<u>X</u>	Mine edit changes were made to this section.
524	Blasting and Explosives Plan	<u>X</u>	
525	Subsidence Control Plan	<u>X</u>	
526	Mine Facilities Description (Narrative, Plans, Maps) Including Existing Structures & Support Facilities	<u>X</u>	Premining and operational maps of the facilities area provided.
527	Transportation Facilities (Including Plans & Maps)	<u>X</u>	No primary roads will be constructed in the area.

528	Coal Mine Waste Plans (Description & Designs)	<u>X</u>	Only minor amount of coalmine waste will be handled at the facility
529	Management of Mine Openings (Design)	<u>X</u>	Designs are shown.
531	General Plans for Structures	<u>X</u>	Plans are shown
532	Sediment Control	<u>X</u>	Sediment pond and ASCA designs are shown.
533	Impoundments	<u>X</u>	Designs are shown.

301-534	Roads (Plans, Drawings, Designs, & Specifications)	—	Reclamation plans not given
535	Spoil	<u>X</u>	No spoil on site.
536	Coal Mine Waste	<u>X</u>	None disposed of on site.
537	Regraded Slopes	<u>X</u>	NA
540 541-542	Reclamation Narrative, Maps and Plans	<u>X</u>	
551	Casing and Sealing Underground Openings	X	
553	Backfilling and Grading Description	<u>X</u>	

301-600	Geology	<u>X</u>	A discussion on geology of the North Rilda Canyon area is included in Volume 11.
621	Description of Geology (Permit & Adjacent Area)	<u>X</u>	Geology of the permit and adjacent area is covered in the curent MRP
622	Geologic Cross-Sections, Maps, and Plans	<u>X</u>	A detailed surfce geology map of the North Rilda area is included in the amendment.
630	Plans for Casing and Sealing Holes	<u>X</u>	

301-700	Hydrology	<u>X</u>	
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721	Description of Hydrologic Resources (Permit and Adjacent Area)	<u>X</u>	
722	Cross-Sections and Maps Subsurface Water - Surface Water - Monitoring Stations - Wells	<u>X</u>	
723	Sampling and Analysis	<u>X</u>	
724	Baseline Information Ground Water - Surface Water - Geology - Climatological & Supplemental; If Needed	<u>X</u>	Baseline information is in the Annual Reports and in the Division's database. See comment concerning R645-301-724.700 under category 302-302 below.
728	PHC Determination	—	Missing the contents of Volume 11, Appendix Volume-R645-301-500 Engineering Section Appendix F April 2004 geotechnical investigation report and missing information on the acid/toxic characteristics of the Leroy Mine waste to be excavated. R645-301-728.200 and 30CFR784.14 Sec (c)(3)(e)(2).
730	General Operation Plan Minimize Disturbance to Hydrologic Balance & Compliance with Clean Water Act	<u>X</u>	
731	Ground and Surface Water Protection	<u>X</u>	
732	Ground and Surface Water Monitoring	<u>X</u>	

301-740	Plans and Designs Operation and Reclamation Plan Sediment Control Measures	<u>X</u>	No plans or drawings, but calculations for culverts and ditches are in Appendix B There will be no spoil from this operation. All waste generated at Rilda Canyon facility will be disposed at the Deer Creek Waste Rock Facility.
	Siltation Structures	<u>X</u>	
	Sediment Ponds	<u>X</u>	
	Other Treatment Facilities	<u>X</u>	
	Diversions	<u>X</u>	
	Road Drainage	<u>X</u>	
	Impoundments	<u>X</u>	
	Discharge Structures	<u>X</u>	
	Disposal of Excess Spoil	<u>NA</u>	
	Coal Mine Waste	<u>X</u>	
Disposal of Non-Coal Mine Waste	<u>X</u>		
Casing and Sealing of Wells	<u>X</u>		

301-800	Bonding and Insurance	<u>X</u>	
820	Applicant Have Adequate Bond at Permit Issuance	<u>X</u>	
830	Bond Estimate and Calculations Provided	<u>X</u>	
890	Certificate of Insurance Provided	<u>X</u>	

302-200	Special Categories of Mining	—	NA
210	Experimental Practices Mining	—	NA
220	Mountaintop Removal Mining	—	NA
230	Steep Slope Mining	—	NA
240	Auger Mining	—	NA

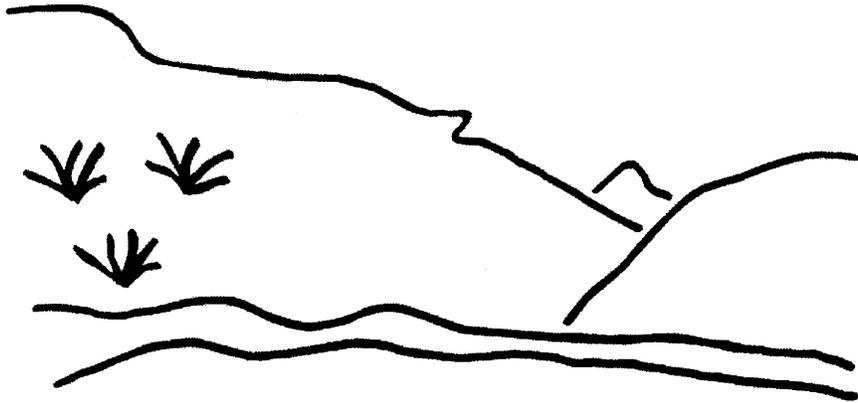
250	In Situ Processing Activities	—	NA
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302-260	Coal Processing Plants (Not Located Within Permit Area of Mine)	—	NA
270	Variations From Approximate Original Contour Restoration Requirements	—	NA
280	Variations for Delay in Contemporaneous Reclamation Requirement in Combined Surface and Underground Coal Mining Activities	—	NA
290	Small Operator Assistance Program (SOAP)	—	NA

302-300	Special Areas of Mining	—	NA
301	Prime Farmland	—	NA
302	Alluvial Valley Floors	—	Section R645-301-724.700 refers reader to volume 9, site specific information should be referenced (R645-302-320).

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State of Utah



Utah Oil Gas and Mining

Coal Regulatory Program

Deer Creek Mine
Replacement Of Volume 11 (RILDA Canyon Facilities)
C/015/0018, Task ID # 2032
Technical Analysis
October 19, 2004

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TECHNICAL ANALYSIS

TECHNICAL ANALYSIS

The Division ensures compliance with the Surface Mining Control and Reclamation Act of 1977(SMCRA). When mines submit a Permit Application Package or an amendment to their Mining and Reclamation Plan, the Division reviews the proposal for conformance to the R645-Coal Mining Rules. This Technical Analysis is such a review. Regardless of these analyses, the permittee must comply with the minimum regulatory requirements as established by SMCRA.

Readers of this document must be aware that the regulatory requirements are included by reference. A complete and current copy of these regulations and a copy of the Technical Analysis and Findings Review Guide can be found at <http://ogm.utah.gov/coal>

This Technical Analysis (TA) is written as part of the permit review process. It documents the Findings that the Division has made to date regarding the application for a permit and is the basis for permitting decisions with regard to the application. The TA is broken down into logical section headings that comprise the necessary components of an application. Each section is analyzed and specific findings are then provided which indicate whether or not the application is in compliance with the requirements.

Often the first technical review of an application finds that the application contains some deficiencies. The deficiencies are discussed in the body of the TA and are identified by a regulatory reference that describes the minimum requirements. In this Technical Analysis we have summarized the deficiencies at the beginning of the document to aid in responding to them. Once all of the deficiencies have been adequately addressed, the TA will be considered final for the permitting action.

It may be that not every topic or regulatory requirement is discussed in this version of the TA. Generally only those sections are analyzed that pertain to a particular permitting action. TAs may have been completed previously and the revised information has not altered the original findings. Those sections that are not discussed in this document are generally considered to be in compliance.

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Task ID #2032
October 19, 2004

TECHNICAL ANALYSIS

INTRODUCTION

INTRODUCTION

In July 1997, PacifiCorp received approval to expand its mining operations in and adjacent to the North Rilda Lease. Subsequent permitting of the Mill Fork Tract in 2003 added 5,562.82 acres to the Deer Creek Mine. In both the North Rilda and Mill Fork plan amendments, the Permittee included no plans for surface disturbance within the North Rilda Lease area. Fan portals in the Left Fork of Rilda Canyon occupy 2.33 acres.

Access to the Mill Fork lease is currently from the Deer Creek Mine portals in Deer Creek Canyon and through a set of main entries in the Hiawatha Seam. The Permittee requires the Rilda Canyon facilities primarily to develop a new portal that will substantially reduce travel distance from the surface to the mine workings and a fan portal to ventilate the Mill Fork Extension. PacifiCorp evaluated long-term options to improve access to the coal reserves located to the northwest of the North Rilda Area. Options considered were:

- Acquisition of Crandall Canyon Mine;
- New portal facilities in Mill Fork Canyon; and
- New portal facilities in Rilda Canyon.

PacifiCorp and Andalex Resources were unable to arrive at a workable agreement utilizing the Crandall Canyon Mine. From extensive investigation, including in-seam horizontal drilling, PacifiCorp selected new portals facilities in Rilda Canyon as the best option.

The Division received an application on November 4, 2003 for a 10.2-acre facilities pad in Rilda Canyon for miners and materials access. The facilities were proposed in an area disturbed by previous mining operations. This application was withdrawn, largely because of anticipated problems in getting permits to place 1,500 feet of Rilda Creek into a large diameter culvert.

On September 2, 2004, the Permittee submitted a new application for the facilities pad area in a new location, approximately ½ mile farther up the canyon, near the intersection of the Right and Left forks of Rilda Canyon, that will not require culverting of the stream. The area is approximately 12 miles up Huntington Canyon from the town of Huntington and can be located on the Rilda Canyon 7.5 minute USGS quadrangle map SW1/4NE1/4, section 29, T.16S. R.7E.

The proposed North Rilda Portal Facilities will consist of two separate areas. The main facilities will consist of 9 acres, with an additional 3.13 acres for soil and subsoil storage down the canyon, a total disturbed area of 12.13 acres. This will bring the total disturbed area for Rilda Canyon, including the Left Fork fan area, to 14.46 acres and total disturbed area for the Deer Creek Mine to 96.47 acres: the total permit area remains unchanged at 22,769.06 acres.

INTRODUCTION

Underground access from the North Rilda Canyon Portal Facilities will be through two rock slopes through the Spring Canyon Member of the Star Point Sandstone. There will be two separate surface breakouts, one for a mine fan and another for intake access. The slopes will connect with extensions of the 1st Right Submains in the Hiawatha Seam. Coal mine waste, the excavated material from the slopes, which will be mainly sandstone, will be stored within the mine.

In addition to the portals, the main disturbed area will include a sedimentation pond, storage areas, 157-stall parking lot, underground vehicle parking garage, three-story bathhouse/office/warehouse, fuel dock, rock dust silo, covered and open storage areas, and other small facilities. The Permittee has limited the disturbance footprint by combining several facilities into one building.

Coal will continue to be shipped through the existing Deer Creek mine workings to the portal in Deer Creek Canyon, from where it will be transported to the Huntington Power Plant coal storage area via the existing overland beltline. Surplus production beyond the Huntington Plant needs will continue to be trucked from the plant on state highway 31.

SUMMARY OF DEFICIENCIES

SUMMARY OF DEFICIENCIES

The Technical analysis of the proposed permit changes cannot be completed at this time. Additional information is requested of the permittee to address deficiencies in the proposal. A summary of deficiencies is provided below. Additional comments and concerns may also be found within the analysis and findings made in this Draft Technical Analysis. Upon finalization of this review, any deficiencies will be evaluated for compliance with the regulatory requirements. Such deficiencies may be conditioned to the requirements of the permit issued by the division, result in denial of the proposed permit changes, or may result in other executive or enforcement action and deemed necessary by the Division at that time to achieve compliance with the Utah Coal Regulatory Program.

Accordingly, the permittee must address those deficiencies as found within this Draft Technical Analysis and provide the following, prior to approval, in accordance with the requirements of:

Regulations

- R6450301-122**, The Permittee needs to provide explicit citations for referenced published materials, including but not limited to: Southeastern Utah Association of Governments, 1977; Mundorff, 1972; Price and Waddell, 1973; Theis (1957, p. 3), and Vaughn Hansen Associates, 1979..... 16
- R645-300-124.330**, Relocate the report “Archeological Sample Survey And Cultural Resource Evaluations Of The East Mountain Locality In Emery County, Utah” to the Confidential File. 20
- R645-301-114**, A cover page should precede the letters of consent found in Volume 11 – Appendix Volume Engineering Appendix B to indicate that they apply the existing fan portal only. 13
- R645-301-121.200**, • Remove the tab “Volume 11 Appendix Volume Biology (Section 300) Appendix E” or provide the document. • Reorganize the pages in one of the “Plant communities of the new North Rilda Canyon portal facilities area 2004” reports. • Either provide the Collins map with the riparian area or clarify the map to reflect Collins statement. • Clarify why there are only two community types planned for disturbance. • Clarify that the USGS macroinvertebrate data may supplement the surveys conducted during and after 2004. • Either remove the Terry Nelson and Pam Jewkes 2004 report from Volume 11 or show how

SUMMARY OF DEFICIENCIES

the report is relevant to the North Rilda Canyon area. • Soils chapter map units “bulleted” on page 3 of the application are incorrect. Refer to the soils map in Appendix B for correct designation of “Colluvial, Toeslopes, Bench” and “Rilda Canyon Road.” 14

R645-301-121.200, A discrepancy exists between the acreage figures provided with the application and those in the MRP. Volume 1, Chapter 1 Appendix E, p. iii indicates total permit acres are 18,8894.24 [sic] and the application indicates in Supplemental Volume Appendix G that there are 22,769.06 acres in the permit. However, this application does not increase permit area. 18

R645-301-121.200, 743.120, The runoff collection tank or basin is described as 5,000 gallons in some places, as 10,000 gallons in others. The Permittee needs to clarify the size and design of this tank or basin. 71

R645-301-121.200, PacificCorp must be consistent about the reclamation plan for the County Road. In Volume 11 Appendix Volume in the Reclamation Hydrology Section 4.1 General, PacificCorp states, that County Road 306 will remain as is after reclamation. Note: some of the culverts will be modified. While in Section R645-301-553.100 of the MRP, PacificCorp states that the County Road will be returned to designs specified by Emery County. 83

R645-301-121.200, PacificCorp must reference the location of all backfilling and grading maps and cross sections in the engineering section of the MRP. For example the reclamation map for the main facilities area, Map 700-4, is not reference in the engineering section of the MRP. 90

R645-301-221, Volume 11 should refer the reader to the location in the MRP where prime farmland determination letters are found and should include the NRCS decision for the proposed disturbance immediately below the left and right forks of Rilda Canyon. 32

R645-301-222, The permit application must include a qualified soil scientist’s opinion on the soil identification and description of the soils within the 3.13-acre topsoil and subsoil storage area, since these three acres were inadvertently omitted from the two soil surveys conducted in 2003 and 2004. 29

R645-301-231, • The plan must include (on a map or in the narrative) a description of the stockpile height and slope and approximate dimensions and volume as well as methods to be used to quickly establish vegetative cover as well as a method of protecting the stockpile from grazing. • After construction, the an accurate accounting of the volume of topsoil stockpiled as well as any changes to the specified dimensions of the topsoil stockpile must be provided to the Division. • The Division recommends placing the grubbed vegetation on the surface of the stockpile to protect the stockpile from wind and water erosion and discourage livestock access. • In section R645-301-232.500, the plan inaccurately references R645-301-234 as

SUMMARY OF DEFICIENCIES

requiring removal and stockpiling of subsoils. The Division has not imposed this requirement upon the Permittee. However, if construction plans require a cut below the depth of two feet, then the plan must include protection of the topsoil in the location of the storage area for the cut soils. Stockpiling construction fill on topsoil is an Experimental Practice and the appropriate regulatory requirements must be addressed. • The application must include a testing plan for evaluating the results of topsoil handling and reclamation procedures related to revegetation..... 56

R645-301-232.200, The soil cover to be salvaged from the AML site must be kept segregated, in a separate stockpile from the undisturbed topsoil salvaged from the site..... 56

R645-301-240, • The plan should indicate the approximate topsoil replacement depth and the replacement area. • The plan should outline reclamation steps to be taken at the topsoil storage site and construction fill stockpile site. 82

R645-301-244, • The pocks to be constructed may be too exaggerated for the slopes less than 2h:1v. Pocks on the order of 18 89

R645-301-251, The plan must indicate that the Permittee will have a qualified person on site who is familiar with the soil survey to ensure that the topsoil is removed according to plan. . 56

R645-301-321.200, Provide productivity values for each community type within the proposed disturbed area. 23

R645-301-322, -301-333, -301-342, -301-358, the Permittee must address these sections of the R645 Rules. 54

R645-301-322, The Permittee needs to include a discussion in the text that correlates the big game species identified in the Wildlife Resources report or any other big game species of concern with the development of the portals and surface facilities located in Rilda Canyon. The discussion also needs to include additional big game species common to the proposed Rilda Canyon development area. 27

R645-301-322.100, • Provide the engineering specs that include frequency ranges for the exhaust and intake fans. • Include a formal and current TES list from the USFWS..... 27

R645-301-322.100, R645-301-322.200, • Conduct a bat survey this fall (2004) or next spring (2005) prior to disturbance using the best available methodology. • Conduct spring and fall aquatic baseline surveys. • Conduct spring and fall aquatic post-disturbance survey. • Conduct macroinvertebrate-monitoring surveys every three years in the spring. • Provide information concerning migratory and other sensitive bird species specific to the North Rilda

SUMMARY OF DEFICIENCIES

Canyon project area. • Provide the results from the MSO 1997 model and a MSO ground-truthing survey.	27
R645-301-322.200 , Provide an overview of habitat and occurrence data for all the TE species in Emery County, the Manti-LaSal National Forest sensitive species, and any other state listed sensitive species.	27
R645-301-322.210 , • Address the Colorado River cutthroat trout and its habitat. • Include a formal and current TE list from the USFWS.	27
R645-301-323, -301-411, -301-521, -301-622, -301-722, -301-731 , The application must include habitat maps for the big game species common to the proposed Rilda Canyon development area. The application must also address the referenced sections of the R645 Rules.	44
R645-301-323.100 , Provide a vegetation map showing all the “established” reference areas. ...	44
R645-301-323.400, R645-301-122 , Provide the missing map referenced in the Johnston (1997) vegetation evaluation.	44
R645-301-330 , Provide an adequate plan for the enhancement, or mitigation of vegetation resources during construction and operations.	57
R645-301-330 , Provide an adequate plan for the protection of wildlife resources during construction, including weekly water monitoring in Rilda Creek for TSS, and during mine operation.	54
R645-301-333 , • Provide all equations and justifications with supporting documentation leading to the overall sum of water depletions or additions for all mining operations and explorations including dust control in section R645-301-333. • Submit a plan to protect Rilda Creek during construction of the facilities site.	54
R645-301-333, -301-342, -301-358 , the Permittee must address these sections of the R645 Rules as related to the reclamation plan for the Rilda Canyon development area.	76
R645-301-342, R645-301-358 , Address wildlife concerns during reclamation and postmining phases. Also, provide an adequate plan for the protection of wildlife resources during reclamation, including weekly water monitoring.	77
R645-301-353.240 , • Develop either a separate seed mix for the white fir/aspen community or a more appropriate mix in conjunction with transplants nearest the stream channel. • Replace rabbitbrush and saltbrush with more appropriate shrub species, such as those found in the three primary community types.	88

SUMMARY OF DEFICIENCIES

R645-301-356.110 , Demonstrate similarity between the reference and disturbed areas for each community type. • Establish a white fir/aspen reference area.....	23
R645-301-356.231 , Provide the stocking rates and suggested stocking species.....	88
R645-301-356.232, R645-301-357.310 , Discuss related information concerning tree and shrub stocking.....	88
R645-301-357.200 , Include scheduling plans for measuring productivity during the extended period of responsibility.....	88
R645-301-357.332 , Remove the discussion on rodents or provide the Division with a detailed plan for review.....	88
R645-301-358.510 , Describe a raptor protection plan for electrical wire and power pole infrastructure for the facilities area.....	54
R645-301-411.120 , Provide a monetary evaluation of the timber proposed for removal within the project area.....	30
R645-301-411.144 , Discuss the results of the Senulis 2004 survey and detail the stipulations of the contractor for that site 42CB3236.....	48
R645-301-422 , PacifiCorp must include either a copy of the Division of Air Quality's approval order (DAQE-AN0239003) or equivalent information into the MRP in order for the Division to have enough information to review the air pollution control plan.....	50
R645-301-521.110 and R645-301-521.140 The Permittee must include mine map that shows all proposed mining in the Hiawatha Seam and the workings of the abandoned mines in and around the North Rilda Portal Facilities site.....	74
R645-301-521.120 , The Permittee must provide the Division with maps that show the identity and location of all existing structures in and around the North Rilda Canyon Portal Facilities. Those structures include but are not limited to: • the 25 KV transmission line, • the water collection and distribution system and • the USFS trail system.....	45
R645-301-521.150 and R645-301-521.190 , The Permittee must include operational maps at a scale of 1 in equals 100 ft and cross sections on 50ft intervals for the entire disturbed area associated with the North Rilda Portal Facilities.....	74
R645-301-521.150 and R645-301-521.190 , The Permittee must provide the Division with maps and cross sections that show the pre-disturbed areas at a scale of 1 in equals 100 ft. In addition the cross sections must cover the entire disturbed area on intervals of not less than one every	

SUMMARY OF DEFICIENCIES

50 ft. The Division needs the predisturbance, operational and reclamation maps at the same scale so that the Division can overlay the maps.	45
R645-301-521.200 and R645-301-121.200 , The Permittee correctly label the Signs and Markers section of the MRP as R645-301-521.200 instead of R645-301-521.190.....	72
R645-301-524.200 and R645-301-524.220 , The Permittee must commit to supply the Division with a blasting plan before any surface blasting activities at the North Rilda Portals Facilities	73
R645-301-526.116 to R645-301-526.116.2 , The Permittee must provide the Division with • a copy of the agreements with Emery County to close County Road 306 at the new trailhead and realign if needed the portion of County Road 306 above the new trailhead • methods to protect the public from mining and reclamation activities that will occur within 100 feet of County Road 306.	49
R645-301-527 and R645-301-533 , The Permittee must include detailed designs for the reconstructed section of County Road 306.	83
R645-301-528.320 , The Permittee must include in the coalmine waste handling plan the following: • the maximum amount of coalmine waste that will be at the Rilda Canyon Portal Facilities at any one time • the maximum amount of time that coal mine waste will be temporarily stored at the Rilda Canyon Portal Facilities.	60
R645-301-533 , The Permittee must provide the Division with designs for the temporary sediment storage basin.	70
R645-301-533.110 , The Permittee must include the supporting calculations for the safety factor analysis used to determine that the sediment pond has a safety factor of 1.3 or greater.	70
R645-301-533.300 , The Permittee must show that the sediment pond will be safe during periods of rapid drawdown.	70
R645-301-537 , What is the likelihood of importation of clay for construction of the sediment pond and how will the material be handled during reclamation?	81
R645-301-542 , PacifiCorp must submit adequate reclamation maps and cross sections in the MRP. PacifiCorp must provide adequate reclamation maps and cross sections for the subsoil storage area and cross sections for the entire main facilities area. At a minimum PacifiCorp must provide: • a reclamation map(s) that show the disturbed area boundaries for all areas associated North Rilda Portals Facilities including the subsoil storage area, • cross sections for the entire main facilities area and • maps and cross sections for the subsoil storage area.....	90

SUMMARY OF DEFICIENCIES

- R645-301-553**, Samples of the LeRoy Mine coal mine waste could not be found in Volume 11 Appendix – Geology Appendix B or in Appendix - Soils Appendix A. Please provide discussion and analytical reports for samples taken of the LeRoy Mine coal mine waste..... 60
- R645-301-553.110**, The Permittee must include a reclamation plan with enough detail for the Division to evaluate the plan to return the site to the approximate original contours. The Division addresses specific deficiencies such as inadequate maps and cross sections are addressed in other sections of the TA..... 78
- R645-301-553.130**, The Permittee must show that the reclaimed slopes will have a minimum safety factor of 1.3 and that the slopes angles will not exceed the angle of repose..... 81
- R645-301-621, -121.200**, On page 6-1 it states “The geology within and adjacent to the permit area is discussed in Sections R645-301-621 through R645-301-627.” There is no section labeled 621, although this seems to be a simple formatting omission because geologic information begins under 645-301-620 ENVIRONMENTAL DESCRIPTIONS in the submittal. For clarity, the Permittee needs to include a heading for section R645-301-621... 34
- R645-301-722.200**, Spring 80-50 needs to be shown on 700-1 if it is within the area shown on that map, and shown other maps as appropriate. 45
- R645-301-728.300**, The Permittee needs to clearly and concisely state in the PHC Determination each of the specific findings that are required by the R645 Rules. A new discussion is not required if the information used to arrive at these findings is already discussed in the MRP, neither a further explanation of possible mitigation; merely a definitive statement of each finding as part of the PHC. 39
- R645-301-731.200**, Reference is made to Volume 9 Appendix A for sample documentation and analytical methods and detection, but the detailed Hydrologic Monitoring Program in Volume 9 Appendix A is out of date (January 2002); the most recent version (March 2003) is in Appendix A of Volume 12..... 71
- R645-301-731.200**, Reference is made to Volume 9 Appendix A for sample documentation and analytical methods and detection, but the detailed Hydrologic Monitoring Program in Volume 9 Appendix A that gives monitoring locations, the monitoring schedule, and water-quality analysis parameter lists is out of date (January 2002); the most recent version (March 2003) is in Appendix A of Volume 12..... 39
- R645-301-731.511**, The Permittee needs to specify how requirements 731.511.1 through 731.511.4 will be met. Section R645-301-513 does not indicate that MSHA has approved discharge into the mine. 71

SUMMARY OF DEFICIENCIES

R645-301-731.520 , The plan does not address handling or disposal of water discharging from the rock slope tunnels during construction and operation of the Rilda Canyon facilities.	71
R645-301-731.611 , The discussion on Wellhead/Drinking Water Source Protection and Figure HF-41 need to be updated to include the proposed Rilda Canyon facilities surface disturbance adjacent to the NEWUSSD springs.	39
R645-301-732.210, 733.200 , The Permittee needs to revise page 43 of Volume 11 Appendix Volume -Hydrology Appendix B: Drainage and Sediment Control Plan so it is clear there will be no permanent impoundment or sedimentation pond at the Rilda Canyon facilities.	70
R645-301-742 , The general concept of the water collection and sediment control system is described in the plan, but the Permittee needs to clarify some information, especially in sections R645-301-530, 731.512.7, and 728 (the PHC): • Is this system to use tanks or “basins”, which can indicate ponds? • If tanks, will they be buried or above the surface? • Will runoff need to be pumped or will it flow directly into the tank or basin? • Is there a separate 10,000-gallon tank before the collection basin for washdown and gray water? • Will all of the water pumped into the mine eventually be discharged at the Deer Creek Mine portals, or will there be separate systems for mine discharge and surface water pumped underground? • Will water pumped underground be used for mine operations?	71
R645-301-830.120 , PacifiCorp must include the detailed reclamation plans upon which the bond calculations are based on in the MRP.	91
R645-302-320 , • The application should reference site-specific investigations of the alluvium. • The April 2004 Geotechnical investigation is missing from Volume 11 – Engineering Appendix F. • Include the missing attachments DRW # DS1633D [HM10] and # DU 1687E [HM-11] that are referenced on the first page of the 1998 ground stability analysis of Volume 11 – Appendix Volume- Engineering Appendix A.	31

GENERAL CONTENTS

GENERAL CONTENTS

General contents information is already in the Supplemental Volume, Legal and Financial. A description of the permit is included with the Volume 11 revision in order to keep all permit amendment documents related to the proposed Rilda Canyon portal facilities together. Upon approval, the permit description will be inserted into its proper location of the Supplemental Volume, Legal and Financial Volume.

RIGHT OF ENTRY

Regulatory Reference: 30 CFR 778.15; R645-301-114

Analysis:

Documents included in Volume 11 – Appendix Volume Engineering Appendix B do not apply to this application. In every case, the consent letters are for the limited haulage of bulk materials to the Rilda fan portal. An explanatory cover page should precede these letters.

Findings

Information provided in the application does not meet the minimum requirements of the R645 Rules. The Permittee must provide the following, prior to approval, in accordance with:

R645-301-114, A cover page should precede the letters of consent found in Volume 11 – Appendix Volume Engineering Appendix B to indicate that they apply the existing fan portal only.

PERMIT APPLICATION FORMAT AND CONTENTS

Regulatory Reference: 30 CFR 777.11; R645-301-120.

Analysis:

Soils chapter map units “bulleted” on page 3 of the application are incorrect. Refer to the soils map in Appendix B for correct designation of “Colluvial, Toeslopes, Bench” and “Rilda Canyon Road.”

GENERAL CONTENTS

The list below provides editorial or clarity issues associated with the Biology and Land Use chapters that the Permittee must address (R645-301-121.200). The tab "Volume 11 Appendix Volume Biology (Section 300) Appendix E" does not include a document. Pagination appears incorrect for the second of two reports "Plant Communities Of The New North Rilda Canyon Portal Facilities Area 2004". Specifically, after page 24 there are three cover pages followed by pages 29, 28, 27, 26, 25, 25, and 26-37. Either provide the Collins map with the riparian area or clarify the map to reflect Collins statement (see Environmental - Vegetation Information section for details). Clarify why there are only two community types planned for disturbance (see Environmental - Vegetation Information section for details). Clarify that the USGS macroinvertebrate data may supplement the surveys conducted during and after 2004 (see Environmental - Fish and Wildlife Information section for details).

The document drafted by Terry Nelson and Pam Jewkes (United States Forest Service USFS; 2004 revised) "Wildlife Resources Report For The State Of Utah School And Institutional Trust Lands Administration Access On East Mountain Project" in Volume 11 Appendix Volume - Engineering section does not apply to the North Rilda Canyon project. The Permittee must either remove the report from Volume 11 or show how the report is relevant to the North Rilda Canyon area. If the Permittee decides to retain this report, then relocate the report from the Engineering Section (Volume 11 Appendix Volume) to an appropriate location.

Findings:

Information provided in the plan does not meet the minimum Permit Application Format and Contents in General Contents requirements of the R645 Rules. Prior to approval, the Permittee must act in accordance with the following:

- R645-301-121.200.**
- Remove the tab "Volume 11 Appendix Volume Biology (Section 300) Appendix E" or provide the document.
 - Reorganize the pages in one of the "Plant communities of the new North Rilda Canyon portal facilities area 2004" reports.
 - Either provide the Collins map with the riparian area or clarify the map to reflect Collins statement.
 - Clarify why there are only two community types planned for disturbance.
 - Clarify that the USGS macroinvertebrate data may supplement the surveys conducted during and after 2004.
 - Either remove the Terry Nelson and Pam Jewkes 2004 report from Volume 11 or show how the report is relevant to the North Rilda Canyon area.
 - Soils chapter map units "bulleted" on page 3 of the application are incorrect. Refer to the soils map in Appendix B for correct designation of "Colluvial, Toeslopes, Bench" and "Rilda Canyon Road."

GENERAL CONTENTS

REPORTING OF TECHNICAL DATA

Regulatory Reference: 30 CFR 777.13; R645-301-130.

Analysis:

The methods and descriptions of the soil surveys and analytical work are in the reports provided by the Professional soil scientists who conducted the soil surveys of Rilda Canyon (Volume 11 Appendix – Soils A and B.

- Mr. James Nyenhuis, Certified Professional Soil Scientist, ARCPACS2573, conducted the soil survey of the proposed North Rilda facilities area in July 2004.
- Mr. Dan Larsen, Soil Scientist, Environmental Industrial Services, Inc. conducted the soil survey of the proposed topsoil and subsoil storage area in Rilda Canyon, in September 2003 and April 2004.
- Intermountain Laboratories – Sheridan reports include dates of analysis and confirmation of analytical methods.
- Colorado State University Soil Testing Laboratory – Ft. Collins reports include dates of analysis and confirmation of analytical methods.

References cited are listed at the end of the Table of Contents for the Geology section and at the end of the Hydrology section, and some are identified within the text. The following sources are cited in Geology and Hydrology sections but are not adequately identified in either the text or a References table in Volumes 1, 2, 9, or 11:

- Southeastern Utah Association of Governments, 1977
- Mundorff, 1972
- Price and Waddell, 1973
- Theis (1957, p. 3)
- Vaughn Hansen Associates, 1979

Qualified professionals conducted or directed the surveys and analysis for the supporting biology- and archeology-related documents cited in Volume 11 2004. The USFS 2004 report was not written to include Rilda Canyon area and does not apply to the proposed North Rilda project.

Findings:

Information provided in the plan does not meet the minimum Reporting of Technical Data in General Contents requirements of the R645 Rules. Prior to approval, the Permittee must act in accordance with the following:

GENERAL CONTENTS

R6450301-122, The Permittee needs to provide explicit citations for referenced published materials, including but not limited to: Southeastern Utah Association of Governments, 1977; Mundorff, 1972; Price and Waddell, 1973; Theis (1957, p. 3), and Vaughn Hansen Associates, 1979.

MAPS AND PLANS

Regulatory Reference: 30 CFR 777.14; R645-301-140.

Analysis:

Maps detailing the Rilda Canyon facilities area are at scales larger than 1:6,000. No map is at a scale smaller than 1:24,000.

Maps 400-1 and 500-1 show areas previously disturbed by mining and the known extent of the underground workings. These pre-SMCRA disturbed areas were identified and reclaimed by the state's AMR program in 1988. These operations, the Romminger (Ferrell), Jeppson, Leroy/ Comfort, and Helco Mines, were active during the 1940s and early 1950s (section R645-301-511).

Findings:

Information provided in the plan meets the minimum Maps and Plans requirements of the R645 Rules.

ENVIRONMENTAL RESOURCES INFORMATION

ENVIRONMENTAL RESOURCE INFORMATION

Regulatory Reference: Pub. L 95-87 Sections 507(b), 508(a), and 516(b); 30 CFR 783., et. al.

GENERAL

Regulatory Reference: 30 CFR 783.12; R645-301-411, -301-521, -301-721.

Analysis:

PacifiCorp will not add any additional land in connection with the North Rilda Canyon Portal Facilities. The Division does not need any additional general resource information. If specific information is needed the Division will address those concerns in other section of the TA.

Findings:

The information provided in the proposed amendment is considered adequate to meet the minimum general requirements for the Environmental Resource Information as required by the R645 Rules.

PERMIT AREA

Regulatory Requirements: 30 CFR 783.12; R645-301-521.

Analysis:

The Permittee will not change the permit boundary in conjunction with the North Rilda Canyon Portal Facilities. They will increase the disturbed area by 12.13 acres.

A discrepancy exists between the acreage figures provided with the application and those in the MRP. Volume 1, Chapter 1 Appendix E, p. iii indicates total permit acres are 18,8894.24 [sic] and the application indicates in Supplemental Volume Appendix G that there are 22,769.06 acres in the permit. However, this application does not increase permit area.

Findings:

Information provided in the plan does not meet the minimum Permit Area requirements of the R645 Rules. Prior to approval, the Permittee must act in accordance with the following:

R645-301-121.200, A discrepancy exists between the acreage figures provided with the application and those in the MRP. Volume 1, Chapter 1 Appendix E, p. iii indicates total permit acres are 18,8894.24 [sic] and the application indicates in Supplemental Volume Appendix G that there are 22,769.06 acres in the permit. However, this application does not increase permit area.

HISTORIC AND ARCHEOLOGICAL RESOURCE INFORMATION

Regulatory Reference: 30 CFR 783.12; R645-301-411.

Analysis:

The plan includes two historical resource documents that cover the proposed facilities and adjacent areas. Both of these documents are in the Division's Confidential File. The bulleted list below summarizes the documents:

- Senulis J (Senco-Phenix) September 30, 2003
 - ◆ *Utah State Project Authorization NO. UO3SC0793f.*
 - ◆ *Location (USGS Quad; Township Range Section T/R/S):*
 - *Rilda Canyon, Utah and Hiawatha, Utah; T16S/R7E/S 22, 27, 28*
 - ◆ Recommendations:
 - Senulis does not recommend any historical properties as eligible for nomination to the National Register of Historic Places (NRHP). A finding of no effect is appropriate and the project should receive clearance without stipulation. There is only a remote chance of finding undetected resources in the future.
 - 42EM1332 was previously nominated, but Senulis does not consider that this project will impact this historic property.
 - ◆ State Historic and Preservation Office (SHPO) communications: The Division initiates the consultation process with SHPO prior to the approval of a submittal.
 - ◆ Division comments: The report details that the Comfort, Helco, and Rominger mines were never given archeological site designations and were reclaimed (by the Division) in the late 1980s. The nominated site 42EM1332 it is not within the facilities area.

- Senulis J (Senco-Phenix) July 28, 2004

ENVIRONMENTAL RESOURCES INFORMATION

- ◆ *Utah State Project Authorization NO. UO4SC0518f.*
- ◆ *Location (USGS Quad; Township Range Section T/R/S):*
 - *Rilda Canyon, Utah and Hiawatha, Utah; T16S/R7E/S 22, 28, 29*
- ◆ *Recommendations:*
 - Senulis recommends 42CB3236 as a historical property eligible for nomination to the NRHP. Senulis considers that if the Permittee follows the 2004 MRP, then operations will have no effect to this site. If the Permittee changes the MRP to include impacting this site, Senulis supports a stipulation to test 42CB3236. The test should include determining the degree of vandalism and extent of deposition. Senulis recommends that SHPO and USFS develop a mitigation plan.
 - Senulis does not recommend the other three historical properties as eligible for listing on the NRHP. The Division plans to make a determination of no effect and will ask SHPO for concurrence with the no effect determination for these 3 sites and for 42CB3236 with stipulations. There is only a remote chance of finding undetected resources in the future.
- ◆ *SHPO communications:* The Division initiates the consultation process with SHPO prior to the approval of a submittal.
- ◆ *Division comments:* The report details that 42CB3236 is on land owned by CO-OP Coal Development Company. This area is near a possible bat den (see sketch in report).

The Senulis documents also describe old mines within or adjacent to the proposed facilities area that were developed in the late 1930s and 1940s. These mines include the Leroy, Jeppson, Comfort, Rominger, and Helco mines. Volume 11 (2004) gives approximate dates of operations for these historic mining projects within the Rilda Canyon area. The associated map (400-1; DS1880D) illustrates locations and boundaries of these historic mining sites. None of the previous surveyors or Senulis deem these mines as eligible for listing.

The Division assesses that the Permittee should not conduct additional historical resource surveys or evaluations at this time because:

- The proposed facilities area is not near eligible sites 42EM1332 or 42CB3236.
 - There are no known NRHP eligible sites within the facilities area.
 - There is little probability of unknown NRHP eligible sites within the facilities area.
- The Division supports a finding of "no effect" to historic resources and that the permit should receive clearance without stipulations. Final decision concerning the proposed project comes after the Division receives a response from SHPO.

Part 2 "Environmental Resources" (Volume 1) includes information related to archeology, vegetation, soil, wildlife, and land use. There are no tabs delineating the subjects. There are also surveys and other related documents scattered throughout Part 2 that are normally located in Appendices. One of these documents is a 173-page report "Archeological Sample

ENVIRONMENTAL RESOURCE INFORMATION

Survey And Cultural Resource Evaluations Of The East Mountain Locality In Emery County, Utah.” The Permittee must relocate this report in the Confidential File (R645-300-124.330).

There are no cemeteries, parks, trails designated by National Systems of Trails, or rivers designated as Wild and Scenic Rivers.

It is important for the Permittee to understand that workers must avoid all historical resources during the life of the project. In the event that construction or operations uncover historical resources, the Permittee must stop all work near the resources and notify the Division. The Permittee, Division, and other appropriate parties will develop a strategy to avoid the site or mitigate the impacts at that time.

Findings:

Information provided in the plan does not meet the minimum Environmental - Historic and Archeological Resource Information requirements of the R645 Rules. Prior to approval, the Permittee must act in accordance with the following:

R645-300-124.330, Relocate the report “Archeological Sample Survey And Cultural Resource Evaluations Of The East Mountain Locality In Emery County, Utah” to the Confidential File.

CLIMATOLOGICAL RESOURCE INFORMATION

Regulatory Reference: 30 CFR 783.18; R645-301-724.

Analysis:

Information on precipitation, winds, and temperature is in section R645-301-724.400. Data from weather stations at the Hunter and Huntington power plants, Electric Lake, and East Mountain is updated in the Annual Reports.

Findings:

Climatological Resource Information is adequate to meet the requirements of the R645 Rules.

VEGETATION RESOURCE INFORMATION

Regulatory Reference: 30 CFR 783.19; R645-301-320.

ENVIRONMENTAL RESOURCES INFORMATION

Analysis:

The proposed facilities site elevation is around 7,500' to 8,000' and will disturb approximately 12.13 acres. Twelve percent or 1.5 acres of the 12.13 were previously disturbed.

Dr. Patrick Collins of Mt. Nebo Scientific, Inc. conducted the two surveys and named both "Plant Communities Of The New North Rilda Canyon Portal Facilities Area 2004" (Appendix B, Appendix Volume, Volume 11 2004). Collins conducted the field surveys during 2003 and 2004. The 2003 survey included the area east of the North Emery Water Special Service District (NEWUSSD) springs. This area was originally planned for disturbance. The 2004 survey included the area west of the NEWUSSD springs.

The 2004 Collins document included a quantitative survey of the proposed facilities and corresponding reference areas. Dr. Collins applied the Division's approved "Vegetation Survey Guidelines" for cover and woody species density. Results showed that there are three major plant communities within the facilities area: white fir/aspens, sagebrush/grass, and pinyon juniper/mountain brush. The document provided GPS coordinates of the communities (page 6 of the 2004 Collins document).

Dr. Collins compared cover and woody plant density between the proposed facilities and reference areas, but did not demonstrate similarity for composition. The Permittee must demonstrate similarity between the reference and disturbed areas (R645-301-356.110; see page 5 of "Vegetation Information Guidelines").

The Permittee must provide productivity values for each community type within the proposed disturbed area as well as corresponding reference areas (R645-301-356.110). For this amendment, the results should include three values for the disturbed area and three values for the corresponding reference areas. Include the new values in the Environmental - Vegetation and Land Use chapters.

Patricia Johnston (1997) conducted a vegetation assessment within the North Rilda lease area (Appendix A, Volume 11 Appendix Volume). One goal was to qualitatively assess the potential impact to threatened, endangered, or sensitive (TES) species from mining-related subsidence. Bob Thompson (USFS) recommended that the only TES species worth assessing was the canyon sweetvetch. The results show that this species was not observed.

The second goal of the 1997 assessment was to define and map vegetation community types of the entire Rilda Canyon area (1960 acres). The map is missing from the document. The Permittee must include the vegetation map described in the Johnston document (R645-301-323.400; R645-301-122; see Maps and Plans section for the deficiency).

The MRP defines the community types for the North Rilda Canyon area as mixed coniferous forests, pinyon-juniper woodlands, mountain brush lands, and riparian areas. The USFS-derived vegetation map (300-1; DS1875C; Volume 11 2004) illustrates these community types with the riparian area as a narrow strip near the proposed facilities area. This map also illustrates aspen forestlands to the west and north of the proposed facilities area.

The Collins (2004) vegetation map (Volume 11 Appendix Volume Biology Appendix B) identifies somewhat different communities than the USFS map. Some of the differences may be attributable to scale difference between the maps (Collins at 1 in:100 ft vs. USFS at 1 in:1,000 ft). The Division expects that the most recent on-the-ground survey would provide a more clear description of the area than the USFS generated map. The Collins map, however, does not include a riparian area near the facilities area. Collins stated (Jerriann Ernsten, October 4, 2004 email communication) that the map illustrates the riparian area as a cottonwood/blue spruce community type. The Permittee must either provide the Collins map with the riparian area or clarify the map to reflect Collins' statement (R645-301-121.200; see Permit Application Format and Contents section for the deficiency).

The Collins 2004 and 2003 reports discuss reference areas for the following communities: sage/grass, pinyon/juniper (undisturbed), white fir/aspen, and pinyon/juniper (AML – 2003 report). The MRP states (Volume 11 page 300-1) that, of the reference areas surveyed, the established reference areas will include sage/grass, pinyon/juniper (undisturbed), and pinyon/juniper (AML). The Collins map, however, illustrates the white fir/aspen and pinyon/juniper (AML) reference areas, and excludes sage/grass and pinyon/juniper (undisturbed) reference areas. The Permittee must provide a vegetation map showing all the "established" reference areas (see R645-301-323.100 for deficiency).

The Permittee states that the disturbance will impact two plant communities (Volume 11 page 300-12). It appears, from the Collins vegetation map, that disturbance will impact three primary communities: sage/grass, pinyon/juniper, and white fir/aspen. Possibly the Permittee does not consider that operations will impact the white fir/aspen community. The Permittee must clarify why there are only two community types planned for disturbance (R645-301-121.200). If disturbance includes white fir/aspen, then the Permittee must establish a white fir/aspen reference area (R645-301-321.100).

Findings:

Information provided in the plan does not meet the minimum Environmental - Vegetation Resource Information requirements of the R645 Rules. Prior to approval, the Permittee must act in accordance with the following:

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R645-301-356.110, Demonstrate similarity between the reference and disturbed areas for each community type. • Establish a white fir/aspen reference area.

R645-301-321.200, Provide productivity values for each community type within the proposed disturbed area.

FISH AND WILDLIFE RESOURCE INFORMATION

Regulatory Reference: 30 CFR 784.21; R645-301-322.

Analysis:

The proposed facilities site elevation is around 7,500' to 8,000' and will disturb approximately 12.13 acres. Twelve percent or 1.5 acres of the 12.13 were previously disturbed.

UNGULATES

Chapter three of the application includes a Wildlife Resources Report prepared by Terry Nelson and Pam Jewkes from the Manti-La Sal National Forest. Big game species identified in the report include the Rocky Mountain elk and mule deer. The report is a stand-alone document, a portion of which describes the listed big game species, their habitats and several alternatives with respect to the development of access routes to the School and Institutional Trust Lands Administration (SITLA) properties located within the Manti-La Sal National Forest. The application does not include a discussion that correlates the big game species identified in this report with the proposed development in Rilda Canyon.

OTHER MAMMALS INCLUDING BATS

The 2004 Nelson and Jewkes report also mentions the Canada lynx, but the report does not consider the North Rilda project area.

The Permittee must conduct a bat survey this fall (2004) or next spring (2005) prior to disturbance using the best available methodology (R645-301-322.100, R645-301-322.200). The bat biologist must survey within the surface facilities and adjacent areas, including the Rilda Creek and the area near the archeology site 42EM3236 (refer to Senulis, July 2004). The survey must include evaluations for all the state-listed sensitive species. It is important to conduct the survey during expected bat activity (weather dependent - May through late October). The Permittee must incorporate the report into the MRP upon compilation. The Division may require

a protection, enhancement, or mitigation plan if the survey indicates negative impacts to bats within the North Rilda Canyon area.

The area could have potential roosting and foraging bat habitat within the project area, especially for the spotted and Townsend's big-eared bats. These bats (and others) use echolocating for hunting. Each species may use different frequencies to echolocate. The Permittee must provide the engineering specs that include frequency ranges for the exhaust and intake fans (R645-301-322.100). The Permittee must address possible impact to bats in the protection and enhancement plan (section R645-301-333) if frequencies of the fan and echolocating bats overlap. The fan requirement is independent of the bat survey results because fan-operating frequencies could impact other species, such as owls.

MACROINVERTIBRATES AND FISH

The proposed facilities area partially borders Rilda Creek - a tributary to Huntington Creek. In the late 1970s, USGS and Utah Department of Natural Resources collaborated to assess hydrology resources within the Huntington Creek drainage (USGS Open-File Report 81-539; Division February 2003 Incoming Files Record #0009). The assessment included evaluating macroinvertebrates at the confluence of Rilda and Huntington creeks.

The Permittee plans to use the USGS report as its baseline macroinvertebrate evaluation for North Rilda Canyon project. The USGS survey, however, is over 20 years old (refer to R645-301-121.100) and provides an evaluation for the macroinvertebrates only at the confluence. The Permittee must clarify that the USGS data may supplement (not serve as the baseline analysis) the surveys conducted during and after 2004 (see R645-301-121.200 for deficiency).

The Permittee must conduct spring and fall aquatic baseline survey and post-disturbance surveys (R645-301-322.100, R645-301-322.200). The protocol for obtaining aquatic baseline data, that the Division, USFS, and DWR support, includes conducting spring and fall surveys for two consecutive years. DWR (Craig Walker) conducted the first spring macroinvertebrate and fish baseline surveys in 2004 and plans to conduct all fish baseline surveys. The Permittee must also conduct the spring and fall aquatic post-disturbance surveys the first spring and fall after construction begins for the main facilities site (R645-301-322.100, R645-301-322.200). The Division may require a protection, enhancement, or mitigation plan if the post-disturbance survey indicates negative impacts to the macroinvertebrates or fish adjacent to the North Rilda Canyon project.

All surveyors must use the same protocol and sampling locations provided in the 2004 Walker document. The Permittee must include the baseline and post-disturbance survey commitments in section R645-301-322 and incorporate all reports and follow-up analysis into Volume 11 Appendix Volume upon compilation.

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The Permittee must also conduct macroinvertebrate-monitoring surveys every three years in the spring (R645-301-322.100, R645-301-322.200). DWR conducts fish surveys in the Huntington drainage and will most likely include Rilda Creek as part of their wildlife management plan. The Division considers that macroinvertebrate monitoring surveys should provide enough information to track changes to Rilda Creek. The Permittee must include the monitoring survey commitment in section R645-301-322 and provide all reports and follow-up analysis into annual reports. The Division may require a protection, enhancement, or mitigation plan if the monitoring surveys ever indicate negative impacts to the macroinvertebrates adjacent to the North Rilda Canyon project.

Walker conducted the 2004 spring survey for macroinvertebrates at three sampling sites: at the Rilda and Huntington confluence, below (south) the facilities area proposed in August 2003, and approximately 90 ft up (west) the right fork of Rilda Creek. Utah State University will analyze the field data and samples and submit the spring 2004 results in the fall 2004.

Walker (2004) conducted an electrofishing survey from the Rilda and Huntington confluence to about 100 ft below the right fork of Rilda Creek. The results were positive for brown and cutthroat trout. The USFS expected a natural barrier, located about 100 ft above the confluence, to prevent fish traveling up Rilda Creek. Walker observed, however, cutthroat fish above the barrier. After the survey, the logs forming the natural barrier were dislodged. DWR and USFS now consider that it is possible that brown trout will also travel up Rilda Creek during their fall spawning season. DWR and USFS consider that cutthroat (and possibly brown trout) movement into Rilda Creek will enhance the fishery in the Huntington drainage. Walker recommends minimizing sedimentation and limiting reductions in water quality.

The Permittee must address the Colorado River cutthroat trout and its habitat. This species is known to exist in Emery County (R645-301-322.210).

GAME BIRDS, MIGRATORY BIRDS, AND RAPTORS

The USFS 2004 report (Volume 11 Appendix Volume Biology Appendix B; cited in Volume 11 page 5) does not apply to the North Rilda Canyon project. The report discusses many species of birds that may have nesting or foraging habitat in the East Mountain area. The Permittee must provide information concerning migratory and other sensitive bird species specific to the North Rilda Canyon project area (R645-301-322.100, R645-301-322.200).

The Permittee plans to conduct yearly raptor surveys for their permit area, including the North Canyon Rilda area. The MRP includes the 2004 raptor survey results (Appendix C, Appendix Volume, Volume 11 2004) conducted by DWR as well as a 2004 raptor nest location map (Volume 11 2004). The results show that there is a golden eagle nest (#1205) within approximately 3000 ft from the facilities area, which is over the 0.5-mile buffer zone. The

surveyors note this nest as "Tended" in 2003 and "Inactive" for 2004. The Division visited the area during the spring of 2004 and observed a pair of golden eagles near this nest.

THREATENED, ENDANGERED, AND SENSITIVE ANIMAL/PLANT SPECIES

The USFS 2004 report provides the list of threatened or endangered species that could occur in Emery County, Utah. The list includes the bald eagle, Mexican spotted owl, black-footed ferret, Canada lynx, southwestern willow flycatcher, western yellow-billed cuckoo, bonytail chub, humpback chub, and razor back sucker. The MRP, however, must include a formal and current list from the USFWS (R645-301-322.210). The Utah Conservation Data Center (DWR) has no record of occurrence for Federally listed threatened or endangered species within the proposed project area.

The Permittee must include an overview of habitat and occurrence data for all the T & E species in Emery County, the Manti-LaSal National Forest sensitive species, and any other state listed sensitive species. Include whether the North Rilda project area potentially includes specific habitats or individuals for each species. (R645-301-322.200.)

Plants

The Permittee reports that plant biologists (P. Collins, P. Johnston, or B. Thompson) have not observed federally listed threatened or endangered species within or near the proposed project area. The USFS designated specific species as sensitive for the Manti-La Sal National Forest. The project area may have habitat for the following sensitive species: *Astragalus montii* (Monti's milkvetch), *Hedysarum occidentale* var. *canone* (canyon sweetvetch), *Silene petersonii* (plateau catchfly), and *Aquilegia flavescens* (yellow columbine). Collins (2004) conducted the most recent on-the-ground vegetation survey. The results showed that there were no TES plant species or ideal habitats for canyon sweetvetch or link trail columbine within the facilities area.

Mexican Spotted Owl (MSO)

Figure 300-1 (Volume 11 2004) illustrates a shape file of the MSO 2000 model showing potential nesting and foraging habitats around Price area, including Rilda Canyon. The model results predict that Rilda Canyon area contains potential foraging habitat. The MRP does not include similar results for the MSO 1997 model. This model uses different parameters and provides different results than the 2000 model. The MRP also does not include the results of the ground-truthing survey. The Permittee must provide the results from the 1997 model and survey (R645-301-322.100, R645-301-322.200).

The Permittee must provide at least the following information from the MSO ground-truthing survey:

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- Surveyor name (Division requires a copy of license to conduct MSO)
- Survey criteria
- Map showing area surveyed and locations (GPS) of observed habitats
- Summary
 - ◆ Occupied and suitable habitat.
 - ◆ Possible impacts to owls and their habitat by the project.

These requirements will help design a protection and enhancement plan if the results are positive for MSO.

Findings:

Information provided in the plan does not meet the minimum Environmental - Fish and Wildlife Resource Information requirements of the R645 Rules. Prior to approval, the Permittee must act in accordance with the following:

R645-301-322, The Permittee needs to include a discussion in the text that correlates the big game species identified in the Wildlife Resources report or any other big game species of concern with the development of the portals and surface facilities located in Rilda Canyon. The discussion also needs to include additional big game species common to the proposed Rilda Canyon development area.

R645-301-322.100, R645-301-322.200, • Conduct a bat survey this fall (2004) or next spring (2005) prior to disturbance using the best available methodology. • Conduct spring and fall aquatic baseline surveys. • Conduct spring and fall aquatic post-disturbance survey. • Conduct macroinvertebrate-monitoring surveys every three years in the spring. • Provide information concerning migratory and other sensitive bird species specific to the North Rilda Canyon project area. • Provide the results from the MSO 1997 model and a MSO ground-truthing survey.

R645-301-322.100, • Provide the engineering specs that include frequency ranges for the exhaust and intake fans. • Include a formal and current TES list from the USFWS.

R645-301-322.200, Provide an overview of habitat and occurrence data for all the TE species in Emery County, the Manti-LaSal National Forest sensitive species, and any other state listed sensitive species.

R645-301-322.210, • Address the Colorado River cutthroat trout and its habitat. • Include a formal and current TE list from the USFWS.

SOILS RESOURCE INFORMATION

Regulatory Reference: 30 CFR 783.21; 30 CFR 817.22; 30 CFR 817.200(c); 30 CFR 823; R645-301-220; R645-301-411.

Analysis:

The 2004 Order I soil survey for the expansion area is found in Volume 11 Appendix Volume – Soils Appendix B, and includes a soils map (with a scale of 1 in = 100 ft) of the proposed portal facilities area.

The 2003 soil survey for the sediment pond area is found in Volume 11 Appendix Volume – Soils Appendix A, and includes a soils map (with a scale of 1 in = 100 ft) of the proposed soil storage area.

Both of the above surveys build upon earlier investigations of the site found in Volume 1 Part 2 Environmental Resources, pp. 2-181.1 through 2-181.39 and Volume 11 Appendix Volume – Soils Appendix A. There is no survey or description in the plan for the topsoil and subsoil storage site.

The 2003/2004 surveys describe alluvial soils straddling the stream (Rilda Creek) on the south side of the existing county road. North Rilda site development will occur north of the county road, avoiding the alluvial soils.

North Rilda facilities development will occur in Map Unit E described as “colluvial toeslopes; bench,” and located on the south facing slope, between the Star Point sandstone outcrop to the north and the alluvial soils of Rilda Creek to the south, at an elevation of 7,600 to 7,730 ft. MSL. This family name indicates that the soil has a rich, brown surface layer (A horizon, 9 – 16 inches). The name also implies an accumulation of calcium carbonate, verified by the soil description as a yellow brown horizon at a depth of 20 – 38 inches. Laboratory analyses of the three soil pedons are found in Volume 11 Appendix Volume – Soils Appendix A of Appendix B. The soil calcium carbonate equivalent percentage increases with depth to 18% at location RC1 (20 – 40 inches) and is constant at about 32% in pedons RC3 and RC4 from the surface to two feet in depth. This carbonate content is high, but manageable. All other parameters (texture, pH, EC, SAR, etc.) indicate good suitability for salvage. The existing vegetation is of the pinyon/juniper and grass/shrub types (see Environmental Resource - Vegetation section for more detail).

The sediment pond will be constructed on toeslopes with Strych series (Map Unit C) and previously disturbed soils (Map Unit D) and both are described in Volume 11 Appendix Volume – Soils: Appendix A. Disturbed soils are less than two feet deep over buried coal waste. There was no pedon description or sampling of soils within Map Unit C. Soil characteristics of Map

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Unit C are assumed to be equivalent to Map Unit E described in the Order I soil survey of the North Rilda area (discussed above). The surface 12 to 18 inches within Map Unit D is suitable for salvage as topsoil according to the laboratory data and field notes in Volume 11 Appendix Volume – Soils Appendix 6.2 and 6.4 of Appendix A).

Soils of the topsoil and subsoil storage area were not described.

Findings:

The information provided does not meet the requirements of the Environmental Resource-Topsoil requirements of the R645 Rules. Prior to approval, the Permittee must provide the following, in accordance with:

R645-301-222, The permit application must include a qualified soil scientist's opinion on the soil identification and description of the soils within the 3.13-acre topsoil and subsoil storage area, since these three acres were inadvertently omitted from the two soil surveys conducted in 2003 and 2004.

LAND-USE RESOURCE INFORMATION

Regulatory Reference: 30 CFR 783.22; R645-301-411.

Analysis:

The USFS classifies the North Rilda Canyon project area as winter range (critical/high priority) and summer range (high priority) for elk and summer range (high priority) for mule deer, mining and mineral development, and general timber and grazing rangeland (Volume 11 Chapter 4 page 1). The MRP provides maps delineating locations and boundaries for wildlife and vegetation resources as well as for historic mining sites. The MRP does not include a current evaluation for vegetation productivity (see R645-301-321.200 for deficiency). The MRP also does not include a monetary evaluation of the timber proposed for removal within the project area (R645-301-411.120).

One of the current land uses within the Rilda Canyon area is a USFS trail. The Permittee agrees to construct a new trailhead and parking pad at the east end of the facilities site. The trail runs east west and will extend past the facilities site.

Findings:

Information provided in the plan does not meet the minimum Environmental Land-Use Resource Information requirements of the R645 Rules. Prior to approval, the Permittee must act in accordance with the following:

R645-301-411.120, Provide a monetary evaluation of the timber proposed for removal within the project area.

ALLUVIAL VALLEY FLOORS

Regulatory Reference: 30 CFR 785.19; 30 CFR 822; R645-302-320.

Analysis:

Section 645-301-724.700 of the plan indicates that alluvial valley floor information can be found in Volume 9 of the MRP. Much about the character of the alluvium in Rilda Canyon can be ascertained from reading the geotechnical, soils, and vegetation surveys in Volume 11 Appendices. The application should refer the reader to these appendices for information. The April 2004 Geotechnical investigation is missing from Volume 11 – Engineering Appendix F. A 1998 ground stability analysis discusses the sub-surface hydrologic alluvial system and associated surface riparian vegetation zone. This report was not included in its entirety. Missing are attachments DRW # DS1633D [HM10] and # DU 1687E [HM-11] that are referenced on the first page of the report (Volume 11 – Appendix Volume- Engineering Appendix A).

The reports of interest that were included in the application are discussed below.

Soils on the south side of Rilda Creek (Map Unit A) were described as alluvial bottomland soils, having a periodic high water table at a depth of 18 – 30 inches, as evidenced by soil mottling. (Volume 11 Appendix Volume – Soils Appendix A, appendix 6-4 and Appendix B pp. 5,7). Brycan soils are dominant in Map Unit A. Schupert soils occupy the drainage channel bottom (Furst. 1991 soil survey of the Rilda fan portal area). The proposed North Rilda Development will not affect these soils.

A 1991 geotechnical investigation of Rilda Canyon in the vicinity of the proposed development indicated that a bench of unconsolidated colluvial material grades into a thick deposit of fine-grained alluvium (Volume 11 – Appendix Volume – Soils Appendix A, p. 9 and Volume 11 – Appendix Volume – Engineering Appendix F, p. 3). The alluvial floor is described in Appendix F (p. 4) as “moderately compacted sandy gravel with boulders along with varying proportions of silt and clay.” Drilling to a depth of 50 ft did not encounter bedrock at drill hole

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10. Highly permeable sandy gravel was encountered at a depth of 15 to 18 ft at drill holes 5 and 6.

1991 Seismic refraction of Rilda Canyon in the vicinity of the proposed development did not reveal a distinct layer of alluvium, although at Line 7, a layer of fine grained alluvium overlying the colluvial deposit in the base of the drainage was encountered (Volume 11 – Appendix Volume – Soils Appendix A, p9 and Volume 11 – Appendix Volume – Engineering Appendix F, p. 7).

Alluvial Valley Floor Determination

No final determination at this time.

Applicability of Statutory Exclusions

Findings:

Information provided in the application does not meet the minimum requirements of the R645 Rules. The Permittee must provide the following, prior to approval, in accordance with:

R645-302-320, • The application should reference site-specific investigations of the alluvium. • The April 2004 Geotechnical investigation is missing from Volume 11 – Engineering Appendix F. • Include the missing attachments DRW # DS1633D [HM10] and # DU 1687E [HM-11] that are referenced on the first page of the 1998 ground stability analysis of Volume 11 – Appendix Volume- Engineering Appendix A.

PRIME FARMLAND

Regulatory Reference: 30 CFR 785.16, 823; R645-301-221, -302-270.

Analysis:

Volume 11 refers the reader to the location of previous non- prime farmland determinations made by the Soil Conservation Service for Rilda Canyon above the left and right forks of Rilda Canyon (vol. 1 Part 2, pp. 2-218.1 – 2-218.3). The Division also came to the same conclusion for this location.

Expansion of disturbance below the forks of Rilda Canyon and Coal Rules R645-301-221 and R645-302-313 require the Division to consult with the Natural Resources Conservation Service

(NRCS) concerning the potential for prime farmland again. The matter was discussed with Leland Sasser of the NRCS Price Field Office in October 2004. The Division is in agreement with the NRCS that there are no prime farmlands in Rilda Canyon due to slope and rockiness of the soils.

Findings:

Information provided in the application does not meet the minimum requirements of the R645 Rules. The Permittee must provide the following, prior to approval, in accordance with:

R645-301-221, Volume 11 should refer the reader to the location in the MRP where prime farmland determination letters are found and should include the NRCS decision for the proposed disturbance immediately below the left and right forks of Rilda Canyon.

GEOLOGIC RESOURCE INFORMATION

Regulatory Reference: 30 CFR 784.22; R645-301-623, -301-724.

Analysis:

Geologic information for the permit and adjacent areas has been collected since 1971. This information has come from exploratory drilling, field investigations, field sampling, surface geologic mapping, aerial photography, and underground mapping of mine workings (Hydrology, p. 6-1).

Geologic information in the current MRP (especially Volumes 8, 9, and 12) and this submittal of a new Volume 11 (North Rilda Canyon Portal Facilities) is sufficient to assist in determining the probable hydrologic consequences of the proposed North Rilda Canyon Portal Facilities operation upon the quality and quantity of surface and ground water in the permit and adjacent areas, including the extent to which surface- and ground-water monitoring is necessary. It is also sufficient for determining all potentially acid- or toxic-forming strata down to and including the stratum immediately below the coal seam to be mined; determining whether reclamation can be accomplished and whether the proposed operation has been designed to prevent material damage to the hydrologic balance outside the permit area; and preparing the subsidence control plan. Geologic information includes a description of the geology of the proposed permit and adjacent areas down to and including the stratum immediately below the lowest coal seam to be mined.

Geologic information includes the Star Point Sandstone, which is considered by some to be an aquifer, although water production from the Star Point Sandstone is typically from

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fractures in the rock rather from the rock matrix itself. Fractures in the Star Point Sandstone contribute a portion of the flow at Rilda Springs, but the bulk of the flow is from the alluvium in the Right and Left Forks of Rilda Canyon (Hydrology, p. 45).

The geologic description includes areal and structural geology of the permit and adjacent areas and how these may affect the occurrence, availability, movement, quantity, and quality of potentially impacted surface and ground water. The description is based on maps and plans provided as resource information for the mine plan. There is site-specific information. Geophysical studies and consultant's reports are in Volume 9 (Hydrology, p. 13).

At this time, the Division has not determined it necessary to require the collection, analysis, and description of additional geologic information to protect the hydrologic balance, to minimize or prevent subsidence, or to meet the performance standards.

The alluvium just above the confluence of the Left and Right Forks is being investigated for the possibility of moving the CVSSD water collection system above the proposed disturbed area. However, the current proposal does not rely on this relocation and the outcome of the geologic investigations at the Proposed Spring Collection area does not affect the feasibility of the Rilda Canyon Facilities project as proposed.

The Permittee has not requested that the Division waive requirements for borehole information or analysis. Several maps, including HM-9 in Volume 9 – Hydrology and map 600-1 in Volume 11 identify the locations of boreholes near Rilda Canyon from which geologic information and samples were obtained.

Appendix A lists Existing Exploration Drillhole Completion Details for the North Rilda Permit Area. Energy West Mining Company collected samples of Star Point Sandstone from boreholes drilled from the 2nd Right development entries at cross-cuts #6 and #10, near where the rock slopes are planned. Analysis results are in Volume 11 Appendix Volume - Geology Appendix B. None of the samples are considered acid- and toxic-forming according to the specifications listed DOGM's "Guidelines for Management of Topsoil and Overburden for Underground and Surface Coal Mining". Excavated material, mainly sandstone, from slope development will be stored within the mine.

(Volume 12 - Geology Appendix A lists average values for proximate analysis, fusion temperatures, and ash analyses for Hiawatha and Blind Canyon coal. Volume 12 – Geology Appendix B of tabulates basic information for boreholes for the Mill Fork Extension, which includes boreholes in and adjacent to Rilda Canyon: one representative lithologic log is included. Several additional logs are in Volume 8 – Geology, and all logs are available at the Energy West office in Huntington, Utah. Energy West collected exploration drilling and in-mine samples of roof and floor for the Blind Canyon and Hiawatha Seams for the North Rilda and Mill Fork extensions of the Deer Creek Mine, including Rilda Canyon and adjacent areas. Appendix C of

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the Geology Section of Volume 12 contains a table of the results of these chemical analyses up to 1999 and analysis results for the 2001 drilling program. Additional analyses results are in Volume 8 - Geology.)

Information on thickness and engineering properties of clays or soft rock in the stratum immediately above and below each coal seam to be mined is not in the MRP, including the Volume 11 submittal. Standard room-and-pillar mining methods are to be used for development of entries and in some areas where longwall mining cannot be done (Engineering, p. 21). Rock mechanics and roof control studies by the Permittee, its contractors, and the former Bureau of Mines have been extensive. Rock strength, entry stress distribution, abutment loads, and roof support design are consistently evaluated. All data are continually processed for efficient layout and design of the Deer Creek Mine (MRP – Part 3, page 17.)

On page 6-1 it states “The geology within and adjacent to the permit area is discussed in Sections R645-301-621 through R645-301-627.” There is no section labeled 621, although this seems to be a simple omission as geologic information begins under 645-301-620 ENVIRONMENTAL DESCRIPTIONS in the submittal. For clarity, the Permittee needs to add a heading for section R645-301-621.

Findings:

R645-301-621, -121.200, On page 6-1 it states “The geology within and adjacent to the permit area is discussed in Sections R645-301-621 through R645-301-627.” There is no section labeled 621, although this seems to be a simple formatting omission because geologic information begins under 645-301-620 ENVIRONMENTAL DESCRIPTIONS in the submittal. For clarity, the Permittee needs to include a heading for section R645-301-621.

HYDROLOGIC RESOURCE INFORMATION

Regulatory Reference: 30 CFR Sec. 701.5, 784.14; R645-100-200, -301-724.

Analysis:

Sampling and Analysis

Water quality sampling and analysis of samples collected by PacifiCorp will be done according to the "Standard Methods for the Examination of Water and Wastewater" (Hydrology, p. 34). Reference is made to Volume 9 Appendix A for sample documentation and analytical methods and detection. The Hydrologic Monitoring Program in Volume 9 Appendix A that gives monitoring locations, the monitoring schedule, and water-quality analysis parameter lists is

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out of date (January 2002); the most recent version (March 2003) is in Appendix A of Volume 12.

Baseline Information

Ground-Water Information

Section R645-301-721 contains a description of the ownership of existing wells, springs, and other groundwater resources, including seasonal quality and quantity of groundwater and usage. Quality and quantity data sufficient to demonstrate seasonal variation and water usage are in Volume 9, the Annual Reports, and the Division's database. Locations are on map HM-1 in Volume 9. Additional ground-water information is in Volume 9.

The alluvium just above the confluence of the Left and Right Forks is being investigated for the possibility of moving the CVSSD water collection system above the proposed disturbed area. However, the current proposal does not rely on this relocation and the outcome of the geologic investigations at the Proposed Spring Collection area does not affect the feasibility of the Rilda Canyon Facilities project as proposed.

Surface-Water Information

Section R645-301-721 includes a description of all surface water bodies. Quality and quantity data sufficient to demonstrate seasonal variation and water usage are in Volume 9, the Annual Reports, and the Division's database. Locations are on map HM-1 in Volume 9. There are no discharges into any surface-water body in the proposed permit and adjacent areas. Additional surface-water information is in Volume 9.

Supplemental information

To evaluate and document the geomorphology characteristics of Rilda Creek, PacifiCorp retained EarthFax Engineering to conduct a field geomorphology investigation of Rilda Creek from above the forks to below the proposed location of the sediment pond. The objectives were to establish permanent benchmarks and cross sections along Rilda Canyon; survey channel cross sections and gradients at the established locations (in accordance with USFS guidelines) and plot the surveyed cross section and profile data; collect information and classify the stream sections in accordance with the Rosgen procedure; gather information concerning stream bed materials, evaluate piezometer data collected previously by PacifiCorp (supplemented by field observations); calculate flood-flow magnitudes based on regional regression equations; and - based on field observations and data collected by Mt. Nebo Scientific - plot various streambank zones on a plan map of the canyon. A complete discussion related to the geomorphology characteristics of Rilda Creek refer to Volume 11 Appendix Volume - Hydrology Appendix C.

DWR conducted biological organism and habitat study of Rilda Creek. The Division asked representatives of the DWR Southeastern Region to participate in an on-site meeting, discuss the impacts of this project on the biota within Rilda Canyon, and aid in the development of a comprehensive EA. During this and subsequent meetings it was decided that DWR would conduct pre and post-disturbance evaluations of macroinvertebrate populations and identify resident fish populations in Rilda Creek. The Permittee states in section R645-301-721, B, 1 that the "Preliminary Report on Surveys Conducted to Determine Potential Impacts of Rilda Surface Facility Development in Rilda Canyon During 2004" in Volume 11 Appendix Volume - Biology Appendix C marks the completion of the predisturbance work: this is not correct; a fall survey and another survey in spring 2005 remain to be done to complete the predisturbance work. The report includes details on macroinvertebrate and fish sampling methodologies and a limited results section. When the final report is completed, a copy will be included.

Baseline Cumulative Impact Area Information

The proposed Rilda Canyon facilities will be within the existing Deer Creek Mine permit area boundary and the East Mountain CIA. Supplemental information on biological organisms and habitat and stream geomorphology will be included in information used to update the East Mountain CHIA.

Modeling

There is no modeling involved in the proposed Rilda Canyon facilities plan.

Probable Hydrologic Consequences (PHC) Determination

Pages 37 to 60 of the Hydrology section of the Volume 11 submittal contain the PHC Determination for the permit and adjacent areas, including the proposed Rilda Canyon facilities. This PHC Determination section is based on hydrologic, geologic, geomorphologic, biologic, and other information collected for initial permitting and during subsequent operation of the Deer Creek Mine, and the PHC section restates much of this information.

Although information pertinent to the PHC Determination is discussed, often in more than one place, this PHC Determination does not contain clear, concise statements for all of the specific findings that are required by the R645 Rules.

Some findings are partially addressed, although the statements are scattered through the text and need to be more complete, clear, and concise.

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- *Whether adverse impacts may occur to the hydrologic balance;*
- *What impact the proposed coal mining and reclamation operation will have on acidity, suspended and total dissolved solids, and other water quality parameters of local importance*
- *What impact the proposed coal mining and reclamation operation will have on ground-water and surface-water availability*
- *Whether the proposed SURFACE COAL MINING AND RECLAMATION ACTIVITY will proximately result in contamination, diminution or interruption of an underground source of water within the proposed permit or adjacent areas that is used for domestic, agricultural, industrial or other legitimate purpose*
- *Whether the proposed SURFACE COAL MINING AND RECLAMATION ACTIVITY will proximately result in contamination, diminution or interruption of a surface source of water within the proposed permit or adjacent areas that is used for domestic, agricultural, industrial or other legitimate purpose*

During periods of high runoff changes in quality are insignificant; however, in low flow conditions some degradation is likely due to the fact that the mine discharge waters are higher in TDS than the surface waters (Hydrology, p. 40). Water discharged from the mine might be of higher quality than if left in the natural system (Hydrology, p. 60).

Little impact to spring flow may actually occur unless geologic conditions change as a result of mining. Total elimination of flow from alluvium and other sources to the NEWUSSD springs is one potential impact. Subsidence could potentially result in the development of cracking or fracturing of the subsurface geologic stratum above the mine workings and local recharge crossing these areas could be lost from the spring recharge system (Hydrology, pp. 50-51). Ground water intercepted by mine workings in the permit area is from storage and any decrease in the natural discharge of the ground-water system is considered to be minor (Hydrology, p. 52). Impacts to water quality are negligible and may be slightly beneficial (Hydrology, p. 43). The potential for mining activities in the North Rilda Area to impact Little Bear Spring is believed to be minimal (Hydrology, p. 56). The potential for depletion of ground water in fluvial-sandstone channel systems, faults and fractures, and structural low areas is covered on pages 57 through 60: water-bearing faults may be encountered, requiring grouting to control ground-water flow into the mine (Hydrology, p. 54). Ground-water storage might be depleted (Hydrology, p. 60).

Impacts to surface water due to the underground operations of Deer Creek - North Rilda area will be minor, both in terms of quality and quantity (Hydrology, p. 38). Subsidence should not cause significant impacts to the surface water system (Hydrology, p. 40). Due to the type of mining and no surface disturbance, surface water impacts are limited (Hydrology, pp. 38-39); however, concerns with the proposed Rilda Canyon Portal Facilities are alluded to but not described (Hydrology, pp. 41-42 and 52).

Mining within the North Rilda area will have negligible impact on the regional hydrologic balance but there could be some possible local impact. There is possible mining-related impact on the hydrologic balance due to: subsidence of the perched aquifer systems, mining in the NEWUSSD Springs area, and interception of ground water by mine workings, mining below the Right Fork of Rilda Canyon, and access to Mill Fork (state lease ML-48258) through the Hiawatha Seam.

Other required findings do not seem to be addressed, at least not explicitly:

- *Whether acid-forming or toxic-forming materials are present that could result in the contamination of surface- or ground-water supplies;*
- *What impact the proposed coal mining and reclamation operation will have on sediment yield from the disturbed area;*
- *What impact the proposed coal mining and reclamation operation will have on flooding and streamflow alteration;*
- *Whether the UNDERGROUND COAL MINING AND RECLAMATION ACTIVITIES conducted after October 24, 1992 may result in contamination, diminution or interruption of State-appropriated Water in existence within the proposed permit or adjacent areas at the time the application is submitted*

Acid- and toxic-forming materials and soil loss and sediment yield are discussed in other sections of the MRP; however, the PHC determination does not address whether acid- or toxic-forming materials are present that could result in the contamination of surface or ground water supplies. Neither does it have findings on what impact the proposed operation will have on sediment yield from the disturbed area, acidity, total suspended and dissolved solids, and other important water quality parameters of local impact; on flooding or streamflow alteration; and on ground-water and surface-water availability.

The alluvium just above the confluence of the Left and Right Forks is being investigated for the possibility of moving the CVSSD water collection system above the proposed disturbed area; however, the current proposal does not rely on this relocation and the outcome of the geologic investigations at the Proposed Spring Collection area does not affect the feasibility of the Rilda Canyon Facilities project as proposed. The PHC mentions this study and the possible move, but there are no PHC determination findings for this relocation.

Groundwater Monitoring Plan

Page 62 of the Hydrology section states that locations of all ground-water monitoring sites and sampling schedules are in Appendix A of Volume 9 - Hydrologic Section. The detailed Hydrologic Monitoring Program in Volume 9 gives monitoring locations, the monitoring

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schedule, and water-quality analysis parameter lists, but it is out of date (January 2002); the most recent version (March 2003) is in Appendix A of Volume 12. This revision of Volume 11 does not affect the water-monitoring plan.

Surface-Water Monitoring Plan

Page 63 of the Hydrology section states that locations of all surface monitoring sites and sampling schedules are in Appendix A of Volume 9 - Hydrologic Section. The detailed Hydrologic Monitoring Program in Volume 9 gives monitoring locations, the monitoring schedule, and water-quality analysis parameter lists, but it is out of date (January 2002); the most recent version (March 2003) is in Appendix A of Volume 12. This revision of Volume 11 does not affect the water-monitoring plan.

Findings:

The Hydrologic Resource Information is not adequate to meet the requirements of this section of the R645 Rules. Prior to approval the Permittee must provide the following in accordance with:

R645-301-731.200, Reference is made to Volume 9 Appendix A for sample documentation and analytical methods and detection, but the detailed Hydrologic Monitoring Program in Volume 9 Appendix A that gives monitoring locations, the monitoring schedule, and water-quality analysis parameter lists is out of date (January 2002); the most recent version (March 2003) is in Appendix A of Volume 12.

R645-301-728.300, The Permittee needs to clearly and concisely state in the PHC Determination each of the specific findings that are required by the R645 Rules. A new discussion is not required if the information used to arrive at these findings is already discussed in the MRP, neither a further explanation of possible mitigation; merely a definitive statement of each finding as part of the PHC.

R645-301-731.611, The discussion on Wellhead/Drinking Water Source Protection and Figure HF-41 need to be updated to include the proposed Rilda Canyon facilities surface disturbance adjacent to the NEWUSSD springs.

MAPS, PLANS, AND CROSS SECTIONS OF RESOURCE INFORMATION

Analysis:

The application does not include habitat maps for the big game species common to the proposed Rilda Canyon development area.

Affected Area Boundary Maps

These maps are in the current MRP.

Archeological Site Maps

The Senco-Phenix 2003 and 2004 reports (Division's Confidential Files) provide maps that illustrate past and present areas surveyed as well as observed sites.

Coal Resource and Geologic Information Maps

The geology map, 600-1, shows the coal crop lines for the Hiawatha and Blind Canyon Seams. It does not indicate strike and dip of the seams. A licensed professional geologist prepared the map.

Strike and dip of the coal seams are shown by structural contours on the Hiawatha and Blind Canyon Seams, Maps MFU 1827D and MFU 1828D in the Geology section of Volume 12. The strike of the coal seams varies as the coal beds and surrounding strata are folded by the different structures. The dip of the coal beds in this area is usually gentle, with dips rarely exceeding 4 or 5 degrees.

There are no new coal resources associated with this amendment. Coal resource maps and mine workings maps are in other volumes of the MRP.

Cultural Resource Maps

The Senco-Phenix 2003 and 2004 reports (Division's Confidential Files) provide maps that illustrate past and present areas surveyed as well as observed sites.

Existing Structures and Facilities Maps

The Permittee did not identify all existing structures and facilities within the North Rilda Canyon Portal Facilities area as required by R645-301-521.120 to R645-301-521.125 on a map that shows the existing conditions. The R645 Rules require that the existing surface and subsurface facilities and features maps must show:

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- *The location of all buildings in and within 1,000 feet of the proposed permit area.* There are no buildings within 1,000 feet of the North Rilda Portals Facilities site.
- *Surface and subsurface man-made features within, passing through or passing over the permit area.* The only such feature is the 25 KV transmission line.
- *Public road in or within 100 feet of the permit area.* County Road 306 is within the disturbed and permit area boundaries.
- *Locations of spoil, waste coal development, noncoal waste disposal, dams, embankments, impoundments and water treatment and air pollution control facilities.* In and around the North Rilda Portal Facilities are three abandoned/reclaimed coal mines. PacifiCorp shows the location of the abandoned/reclaimed mines. There are water collections systems near the North Rilda Portal Facilities that Emery County will relocate prior to PacifiCorp developing the area. The location of the water collection facilities is not on a pre-disturbed map.

PacifiCorp does not show the location of the existing USFS trail system. Before PacifiCorp develops the area, Emery County will move the trail system so that it will be outside the disturbed area. PacifiCorp must show the location of the trail system on a pre-disturbed map because the reclamation plan calls for the Permittee to restore the trail system to the original location during reclamation. Therefore, PacifiCorp must show on Map 500-1 the following features:

- The 25 KV transmission line.
- The water collection system and pipelines.
- The USFS trail system.

Existing Surface Configuration Maps

PacifiCorp did not provide the Division with adequate maps that show the entire existing surface topography for the proposed disturbed area boundaries. Map 500-1, Deer Creek Mine Rilda Pre-Disturbance Topography, shows the existing contours within the disturbed area boundaries and those contours continue for at least 100 feet outside the disturbed area boundary.

Map 500-1 is at a scale of 1 in equals 300 ft while the operations map (500-2, Deer Creek Mine Rilda Canyon Surface Facilities) is at a scale of 1 in equals 100 ft. The Division needs the existing surface (topographic) map to be at a scale of 1 in equals 100 ft for two reasons:

- The Division needs the larger scale map for their analysis of the premining conditions.
- The Division needs the ability to overlay the premining, operational and postmining maps. They are unable to do that if the scales are not consistent.

Map 500-1 does not outline the disturbed area boundary for the subsoil storage area. The Permittee outlined on subsoil storage area on Map 700-5 but its scale is 1 in equals 200 ft. As mentioned above the Division needs premining maps at a scale of 1 in equals 100 ft.

The cross sections on Map 500-2 and 500-3 do not include the lower portion of the main facilities area. The Division needs cross sections every 50 feet.

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The cross sections on Map 500-2 and 500-3 do not include the lower portion of the main facilities area. The Division needs cross sections every 50 feet.

Mine Workings Maps

The Division does not need any additional information on existing mine workings whether active, inactive or abandoned. When the area was first permitted, PacifiCorp included that information in the MRP.

Because the Rilda Canyon Portal Facilities are located on or near abandoned/reclaimed mines PacifiCorp showed the location of the Leroy/Comfort Mine, Helco Mine, Romminger (Ferrell) Mine and Jeppson Mine on several maps including Map DS1878F. In Section R645-301-511 PacifiCorp mention the abandoned/reclaimed mines in the area.

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Monitoring and Sampling Location Maps

The Walker 2004 report (Volume 11 Appendix Volume Biology Appendix D) provides a monitoring location map for the macroinvertebrate and fish surveys in Rilda Creek.

Volume 11 contains a commitment to continue to analyze vegetation changes every five years using infrared technology. Results should illustrate if continued mining operations impact vegetation.

HM-1, the Water Monitoring Location Map, is in Volume 9 - Hydrologic Section. There is no new monitoring for the Rilda Canyon facilities.

Permit Area Boundary Maps

PacifiCorp will not change the permit boundaries for the Deer Creek Mine as part of the construction of the Rilda Canyon Portal Facilities.

Subsurface Water Resource Maps

Map 700-1 shows the locations of the water-supply intakes for the NEWUSSD. Detailed information on the alluvial aquifer is in Volume 9 - Hydrologic Section of the Deer Creek Mine MRP (Hydrology, p. 67), along with drawings of the NEWUSSD collection system.

Spring 80-50 is not shown on any of the maps.

Surface and Subsurface Manmade Features Maps

These maps are in the current MRP.

Surface and Subsurface Ownership Maps

These maps are in the current MRP.

Surface Water Resource Maps

Map 700-1 and other maps show locations of the surface waters that will receive discharges from affected areas in the proposed permit area. Streams and constructed culverts and ditches are also shown. Drainages that will contribute disturbed and undisturbed drainage are outlined on map 700-2. Alternate sediment control areas (ASCA) are shown on map 700-5.

Vegetation Reference Area Maps

Vegetation map, Drawing #: DS1875C designates the vegetation community types within and adjacent to the North Rilda portal facilities site.

Provide the missing map referenced in the Johnston (1997) vegetation evaluation (Appendix A, Volume 11 Appendix Volume). (R645-301-323.400; R645-301-122; see Environmental - Vegetation Information section for details.)

The Collins 2004 report (Volume 11 Appendix Volume Biology Appendix B) provides a detailed vegetation map of the proposed project area. The results show that there are three major plant communities within the facilities area: white fir/aspen, sagebrush/grass, and pinyon juniper/mountain brush. The map illustrates the sampling locations for the proposed disturbed sites for each community type and for two of three associated reference areas. The map does not include the sampling location for the reference area for the sagebrush/grass and pinyon/juniper (undisturbed) community types. The Permittee must provide a vegetation map showing all the "established" reference areas (R645-301-323.100; see Environmental - Vegetation Information section for more details).

Well Maps

There are no gas or oil wells in the Rilda Canyon facilities area. Water monitoring wells at the NEWUSSD system are shown on maps in Volume 9.

Findings:

Maps, plans, and cross sections of resource information provided in the plan do not meet the minimum requirements of the R645 Rules. Prior to approval, the Permittee must act in accordance with the following:

R645-301-323, -301-411, -301-521, -301-622, -301-722, -301-731, The application must include habitat maps for the big game species common to the proposed Rilda Canyon development area. The application must also address the referenced sections of the R645 Rules.

R645-301-323.400, R645-301-122, Provide the missing map referenced in the Johnston (1997) vegetation evaluation.

R645-301-323.100, Provide a vegetation map showing all the "established" reference areas.

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R645-301-521.120, The Permittee must provide the Division with maps that show the identity and location of all existing structures in and around the North Rilda Canyon Portal Facilities. Those structures include but are not limited to: • the 25 KV transmission line, • the water collection and distribution system and • the USFS trail system.

R645-301-521.150 and R645-301-521.190, The Permittee must provide the Division with maps and cross sections that show the pre-disturbed areas at a scale of 1 in equals 100 ft. In addition the cross sections must cover the entire disturbed area on intervals of not less than one every 50 ft. The Division needs the predisturbance, operational and reclamation maps at the same scale so that the Division can overlay the maps.

R645-301-722.200, Spring 80-50 needs to be shown on 700-1 if it is within the area shown on that map, and shown other maps as appropriate.

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MINING OPERATIONS AND FACILITIES

Regulatory Reference: 30 CFR 784.2, 784.11; R645-301-231, -301-526, -301-528.

Analysis:

PacifiCorp adequately addressed the general requirements of R645-301-526 and R645-301-528 by providing a narrative of the type of structures and facilities that would be constructed at the North Rilda Lease surface facility. In addition, PacifiCorp also described the handling of coal and coal mine waste at the site. Besides, the requirements for general narratives R645-301-526 and R645-301-528 also have specific requirements that the Division addresses in other sections of the TA.

Findings:

The information provided in the proposed amendment is considered adequate to meet the minimum general requirements for the Mining Operation and Facilities as required by the R645 Rules.

EXISTING STRUCTURES:

Regulatory Reference: 30 CFR 784.12; R645-301-526.

Analysis:

PacifiCorp addressed how they will use the existing structures in connection with the North Rilda Portal Facilities site. The two existing structures within the disturbed area boundary that PacifiCorp will use as part of the mining and reclamation activities are Emery County Road No. 306, and a 25 KV power line. The Division addresses the requirements for use and realignment of a public road in the Relocation or Use of a Public Road section of the TA.

The Permittee addressed how they will modify the existing 25 KV power line in connection with the North Rilda Portal Facilities in Section R645-301-521.180 of the MRP. PacifiCorp will construct the power lines in accordance with the raptor protection requirements.

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Findings:

The information provided in the proposed amendment is considered adequate to meet the minimum general requirements for the Existing Structures as required by the R645 Rules

PROTECTION OF PUBLIC PARKS AND HISTORIC PLACES

Regulatory Reference: 30 CFR784.17; R645-301-411.

Analysis:

The Permittee does not include the results of the most recent historic survey conducted in 2004 (Senulis). In the 2004 document, Senulis recommends site 42CB3236 to the National Register of Historic Places. The Permittee must discuss the results of the 2004 survey and detail the stipulations of the contractor for that site (R645-301-411.144).

Findings:

Information provided in the plan does not meet the minimum Operations - Protection of Public Parks and Historic Places requirements of the R645 Rules. Prior to approval, the Permittee must act in accordance with the following:

R645-301-411.144, Discuss the results of the Senulis 2004 survey and detail the stipulations of the contractor for that site 42CB3236.

RELOCATION OR USE OF PUBLIC ROADS

Regulatory Reference: 30 CFR 784.18; R645-301-521, -301-526.

Analysis:

PacifiCorp did not adequately address the relocation and use of the Emery County Road 306. Emery County had several restrictions on the use of County Road 306. In the September 2, 2004 submittal, the Permittee removed stipulations for limited access to the Left Fork Rilda Canyon facilities without any supporting documentation. The Division needs the supporting documentation in order to approve the changes.

PacifiCorp and Emery County entered into an agreement whereby the Permittee would pay for improvements to the Rilda Canyon Road (County Road 306) and that Emery County would

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do the work as part of regular upgrading and maintenance. In the agreement, the parties discuss the following actions:

- The reconstruction and/or reconfiguration of the intersection/turnoff from SR 31 to the Rilda Canyon Road.
- The reconstruction, realignment, widening and surfacing of the Rilda Canyon Road to allow for increased speed and increased traffic.
- The construction of a trailhead parking area and turnaround area at the end of the reconstructed portion of the Rilda Canyon Road. The area will provide public access to a forest trail system to extend beyond PacifiCorp's facilities.
- The relocation of the existing water supply pipeline owned by NEWUSSD, as needed.

The first two items cover activities outside the disturbed area. Since the County will be doing the work on a County road the Division considers those items outside the Division's jurisdiction.

In the third item, the end of the reconstruction occurs at the trailhead. Map 500-2 shows the trailhead below most of the main facilities. Therefore, the Permittee must address the reconstruction and/or reconfiguration of the section of County Road 306 above the trailhead. In addition, the Permittee must discuss the closure of County Road 306 above the trailhead.

The fourth issue deals with reclamation and will be addressed in the reclamation section of the TA.

The Permittee did not address how they would protect the public when they conduct mining operations within 100 feet of a public road. The Division needs to know what steps will be taken to protect the public.

Findings:

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

- R645-301-526.116 to R645-301-526.116.2**, The Permittee must provide the Division with
- a copy of the agreements with Emery County to close County Road 306 at the new trailhead and realign if needed the portion of County Road 306 above the new trailhead
 - methods to protect the public from mining and reclamation activities that will occur within 100 feet of County Road 306.

AIR POLLUTION CONTROL PLAN

Regulatory Reference: 30 CFR 784.26, 817.95; R645-301-244, -301-420.

Analysis:

PacifiCorp did not include a copy of the Division of Air Quality's approval order (DAQE-AN0239003). The Division cannot complete the review of the air pollution control plan without the air quality approval order or similar information. The Division does not have the authority to require that PacifiCorp incorporate a copy of the air quality order into the MRP. However, the Division can require that PacifiCorp place the same information that is contained in the air quality order into the MRP.

Findings:

The information provided in the application is not adequate to meet the requirements of this section of the R645 Rules. Prior to approval the Permittee must provide the following in accordance with:

R645-301-422, PacifiCorp must include either a copy of the Division of Air Quality's approval order (DAQE-AN0239003) or equivalent information into the MRP in order for the Division to have enough information to review the air pollution control plan.

SUBSIDENCE CONTROL PLAN

Regulatory Reference: 30 CFR 784.20, 817.121, 817.122; R645-301-521, -301-525, -301-724.

Analysis:

Subsidence Control Plan

The Permittee will not alter the subsidence control plan in connection with the installation and operation of the North Rilda Canyon Portal Facilities.

Findings:

The information provided in the proposed amendment is considered adequate to meet the minimum general requirements for the Subsidence Control Plan as required by the R645 Rules.

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FISH AND WILDLIFE INFORMATION

Regulatory Reference: 30 CFR Sec. 784.21, 817.97; R645-301-322, -301-333, -301-342, -301-358.

Analysis:

The Biology section in Operations of the MRP is inadequate. The Division cannot make any determinations at this time for any wildlife-related subject under the Operations Section. The Permittee made no mention of a protection, enhancement, or mitigation plan for wildlife, and provided unrelated information in the Operations section.

The Permittee states (Reclamation section) that wildlife resources will be protected by installing "buffer zone" signage along the stream channel, locating the facilities area downstream of the left and right fork of Rilda Creek, and ceasing haulage trucks to and from the existing Rilda Canyon fan. The Division recommends relocating all the information in Section R645-301-342 in the Operations section under R645-301-330.

The Permittee must provide an adequate plan for the protection of wildlife resources during construction and operations phases, including weekly water monitoring (R645-301-330). Address all applicable exclusionary periods (big game, birds, others) as they relate to construction schedules. The Permittee should use the wildlife-related information provided below (Operations - Fish and Wildlife Information) as a guideline to follow for this requirement.

Protection and Enhancement Plan

The application does not include a protection and enhancement plan for Big Game species common to the proposed Rilda Canyon development area.

The Permittee must address the rat midden above the proposed facilities area. The USFS requires that the Permittee include provisions to protect this midden.

The Permittee must conduct a bat survey using the best available technology recommended by a bat biologist. The Division may require a protection, enhancement, or mitigation plan if the survey results are positive for bats.

The Permittee must conduct macroinvertebrate "post-disturbance" and "monitoring" surveys. The Division may require a protection, enhancement, or mitigation plan if the post-disturbance or monitoring surveys indicate negative impacts to the macroinvertebrates adjacent to the North Rilda Canyon project.

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The Permittee must address the Colorado River cutthroat trout. The Division may require a protection, enhancement, or mitigation plan if it is probable that mining operations will impact individuals or its habitat.

The Permittee must provide information concerning migratory and other sensitive bird species. Depending on the information, the Division and other agencies may require a protection, enhancement, or mitigation plan for mitigating bird species and their habitats.

The Permittee plans to conduct yearly raptor surveys for their permit area, including the North Rilda Canyon project.

The Permittee must describe a protection plan for electrical wire and power pole infrastructure for the facilities area. Aboveground power lines must follow the guidelines developed by the Environmental Criteria for Electric Transmission Systems or the Division. The Permittee must implement new power pole configuration designed to maintain adequate spacing. The new configuration includes a minimum distance of 60 inches between energized hardware or between phases or between phases and ground wires to provide safe perching for large raptors (eagles). This information will assist the Division in determining whether the Permittee is proposing the best technology and if the configuration will minimize electrocution hazards to raptors. (R645-301-358.510). It is important to note that West Ridge mine, developed in the Book Cliffs coalfield in 1998, located all power lines underground. The Division suggests the same best technology for the North Rilda Canyon project.

Endangered and Threatened Species

The Permittee must include an overview of habitat and occurrence data for all the TE species in Emery County, the Manti-LaSal National Forest sensitive species, and any other state listed sensitive species. The Division may require a protection, enhancement, or mitigation plan if data indicates habitat or individuals within or adjacent to the North Rilda project area.

Mexican Spotted Owl (MSO)

The Permittee must conduct a MSO ground-truthing survey. The Division will require a calling survey for individuals if the ground-truthing survey is positive for habitat. If surveyors observe individuals, the Division may require a protection, enhancement, or mitigation plan for MSO.

Colorado River Fish

Adverse effects of mining on water quantity to the Colorado River drainages do affect four Colorado River endangered fish species (Colorado pikeminnow, humpback chub, bonytail

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chub, and razorback sucker). The USFWS considers depletions or changes to contributions to the Colorado River drainage as a potential jeopardy to these endangered fish. Water users may be required to mitigate if there are considerable changes to contributions or if water consumption is greater than 100 acre-ft per year. Currently, the mitigation fee is approximately \$16.00 per acre-ft of depletion, but may change marginally from year to year.

The Permittee must address possible adverse effects to these four fish species by first calculating the amount of water used or contributed by all mining operations. The Permittee may use the following paper as a guideline "Windy Gap Process As It Applies To Existing Coal Mines In The Upper Colorado River Basin". In brief, consumption values must at least include the following:

- Mining consumption
- Ventilation consumption
- Coal producing consumption
- Ventilation evaporation
- Sediment pond evaporation
- Springs and seep effects from subsidence
- Alluvial aquifer abstractions into mines
- Alluvial well pumpage
- Deep aquifer pumpage
- Postmining inflow to workings
- Coal moisture loss
- Direct diversions
- Dust suppression (not mentioned in Windy Gap).

Through effects of water quantity and quality on the river, the mine could adversely affect the four Colorado River endangered fish species. The Permittee must provide all equations and justifications with supporting documentation leading to the overall sum of water depletions or additions for all mining operations and explorations including dust control in section R645-301-333. (R645-301-333.) Also, provide the overall change in water as a result of new development or changes in operations.

The Permittee must resubmit water consumption calculations

- If original submittal was based on estimates prior to mining. Submit actual values during the midterm review.
- If future changes in mining operations significantly change current total estimates. Submit new values with amendment related to change in mining operations.

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Bald and Golden Eagles

The Permittee plans to conduct yearly raptor surveys for their permit area, including the Rilda area. The Division may require a protection, enhancement, or mitigation plan if it is probable that current mining operations will impact individuals or its habitat.

Wetlands and Habitats of Unusually High Value for Fish and Wildlife

The application does not address this section of the R645 Rules with respect to the proposed Rilda Canyon development area

The Permittee must submit a plan to protect Rilda Creek during construction of the facilities site (R645-301-333). Stream channel areas in and adjacent to the permit area may experience construction pressures (e.g., heavy traffic, large equipment, oil spills, dust) that may compromise the integrity of the stream channel and affect water quality. Any disturbance to the stream channel may impact vegetation and wildlife that utilize the stream.

Findings:

Information provided in the plan does not meet the minimum Operations - Fish and Wildlife Information requirements of the R645 Rules. Prior to approval, the Permittee must act in accordance with the following:

R645-301-322, -301-333, -301-342, -301-358, the Permittee must address these sections of the R645 Rules.

R645-301-330, Provide an adequate plan for the protection of wildlife resources during construction, including weekly water monitoring in Rilda Creek for TSS, and during mine operation.

R645-301-333, • Provide all equations and justifications with supporting documentation leading to the overall sum of water depletions or additions for all mining operations and explorations including dust control in section R645-301-333. • Submit a plan to protect Rilda Creek during construction of the facilities site.

R645-301-358.510, Describe a raptor protection plan for electrical wire and power pole infrastructure for the facilities area.

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TOPSOIL AND SUBSOIL

Regulatory Reference: 30 CFR Sec. 817.22; R645-301-230.

Analysis:

Topsoil Removal and Storage

The plan describes removing the A and B horizon (to a depth of 24 inches) in one step and salvaging this material as topsoil (R645-301-233). Map 200-1 illustrates the area of topsoil salvage and shows the 3.13-acre stockpile site. There are no plans to salvage topsoil from beneath the stockpiles.

Section R645-301-232 indicates that as much soil material as possible will be removed from the AML site prior to removal of the coal mine waste buried in the location of the proposed sediment pond. This material must be kept segregated from the undisturbed topsoil salvaged from the site.

Soil stripping depths for the site will vary based upon the depth of topsoil up to two feet. The Division recommends that the Permittee have a qualified person (who is familiar with the soil survey and salvage plan) on site to monitor the soil salvage operations. In addition, the Division soil scientist would appreciate advance notice of the soil salvage and will plan to be present.

The plan indicates that an underlying stratum of subsoil will be removed as required by R645-301-234. This rule only requires removal of the B or C horizon when there is a deficit of A horizon topsoil. This rule does not apply when the main consideration for removal of the subsoil is for ease of construction (R645-301-521.150). If the subsoil below the depth of two feet is removed and stockpiled, there must either be (1) removal of the topsoil resource in the location of the surplus cut stockpile or (2) protection of the topsoil resource upon which the surplus cut stockpile will be laid. Stockpiling the surplus cut on topsoil is an Experimental Practice and the appropriate regulatory requirements should be addressed.

The topsoil stockpile will be protected from erosion according to the best technology currently available (BTCA) described for Alternate Sediment Control Areas (ASCA) in Volume 11 Appendix Volume Hydrology (section 700) Appendix B, sec.2.11. The BTCA is to use vegetation on the stockpile with silt fences and berms around the stockpile. The stockpile will be vegetated with the sagebrush/grass seed mix described in Table 300-4 of R645-301-341.

The Division recommends placing the grubbed vegetation on the surface of the stockpile to protect the stockpile from wind and water erosion and discourage livestock access.

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R645-301-231.300 requires that the plan include a testing plan for evaluating the results of topsoil handling and reclamation procedures related to revegetation. Such information was not found in the application.

Findings:

Information provided in the application does not meet the minimum requirements of the R645 Rules. The Permittee must provide the following, prior to approval, in accordance with:

R645-301-231, • The plan must include (on a map or in the narrative) a description of the stockpile height and slope and approximate dimensions and volume as well as methods to be used to quickly establish vegetative cover as well as a method of protecting the stockpile from grazing. • After construction, the an accurate accounting of the volume of topsoil stockpiled as well as any changes to the specified dimensions of the topsoil stockpile must be provided to the Division. • The Division recommends placing the grubbed vegetation on the surface of the stockpile to protect the stockpile from wind and water erosion and discourage livestock access. • In section R645-301-232.500, the plan inaccurately references R645-301-234 as requiring removal and stockpiling of subsoils. The Division has not imposed this requirement upon the Permittee. However, if construction plans require a cut below the depth of two feet, then the plan must include protection of the topsoil in the location of the storage area for the cut soils. Stockpiling construction fill on topsoil is an Experimental Practice and the appropriate regulatory requirements must be addressed. • The application must include a testing plan for evaluating the results of topsoil handling and reclamation procedures related to revegetation.

R645-301-232.200, The soil cover to be salvaged from the AML site must be kept segregated, in a separate stockpile from the undisturbed topsoil salvaged from the site.

R645-301-251, The plan must indicate that the Permittee will have a qualified person on site who is familiar with the soil survey to ensure that the topsoil is removed according to plan.

VEGETATION

Regulatory Reference: R645-301-330, -301-331, -301-332.

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Analysis:

The Biology section in Operations of the MRP is inadequate. The Division cannot make any determinations at this time for any vegetation-related subject under the Operations Section. The Permittee made no mention of a protection, enhancement, or mitigation plan for vegetation, and provided unrelated information in the Operations section. The Permittee must provide an adequate plan for the protection of vegetation resources for this section (R645-301-330). The Division recommends discussing parts of the plan that reduces the overall disturbance "footprint". Also, may want to include provisions if, during construction or operations, workers locate sensitive or TE plant species.

Findings:

Information provided in the plan does not meet the minimum Operations - Vegetation Information requirements of the R645 Rules. Prior to approval, the Permittee must act in accordance with the following:

R645-301-330, Provide an adequate plan for the enhancement, or mitigation of vegetation resources during construction and operations.

ROAD SYSTEMS AND OTHER TRANSPORTATION FACILITIES

Regulatory Reference: 30 CFR Sec. 784.24, 817.150, 817.151; R645-301-521, -301-527, -301-534, -301-732.

Analysis:

The Permittee does not propose constructing any roads in connection with the North Rilda Portal Facilities. The Division does not consider the pad areas as a road.

The Permittee did not address the issues pertaining to reconstruction/realignment of County Road 306. The Division addressed those concerns in other sections of the TA.

Performance Standards

Roads will be located, designed, constructed, reconstructed used, maintained and reclaimed according to R645-301-732.400, R645-301-742.400 and R645-301-762 and to achieve the following: control or prevent erosion, siltation, and the air pollution attendant to erosion by vegetating or otherwise stabilizing all exposed surfaces in accordance with current, prudent engineering practices; control or prevent additional contributions of suspended solids or stream flow or runoff outside the permit area; neither cause nor contribute to, directly or indirectly, the violation of effluent standards given under R645-301-751; minimize the diminution to or

degradation of the quality or quantity of surface- and ground-water systems; and refrain from significantly altering the normal flow of water in streambeds or drainage channels (Hydrology, p. 77).

Findings:

The information provided in the proposed amendment is considered adequate to meet the minimum general requirements for the Road Systems and Other Transportation Facilities as required by the R645 Rules.

SPOIL AND WASTE MATERIALS

Regulatory Reference: 30 CFR Sec. 701.5, 784.19, 784.25, 817.71, 817.72, 817.73, 817.74, 817.81, 817.83, 817.84, 817.87, 817.89; R645-100-200, -301-210, -301-211, -301-212, -301-412, -301-512, -301-513, -301-514, -301-521, -301-526, -301-528, -301-535, -301-536, -301-542, -301-553, -301-745, -301-746, -301-747.

Analysis:

Disposal of Excess Spoil, Coal Mine Waste and Noncoal Mine Waste. Disposal areas for excess spoil, coal mine waste, and noncoal mine waste will be located, maintained, constructed and reclaimed to comply with R645-301-735, R645-301-736, 8645-301-745, R645-301-746, R645-301-747 and R645-301-760 (Hydrology, p. 78).

Disposal Of Noncoal Mine Wastes

PacifiCorp adequately addressed this section of the R645 Rules. They will temporarily store all noncoal mine waste in a temporary storage facility located on Map 500-2. PacifiCorp will permanently dispose of all noncoal mine waste in an approved disposal facility.

Noncoal mine waste, including but not limited to grease, lubricants, paints, flammable liquids, garbage, machinery, lumber and other combustible materials generated during coal mining and reclamation operations will be placed and stored in a controlled manner in a designated temporary storage site and disposed of at a state-approved solid waste disposal area. Map 500-2 shows the location of the non-coal waste storage site (Hydrology, p. 76).

Coal Mine Waste

The Permittee faces two coal mine waste issues. The first issue deals with the storage of small amounts of coalmine waste that the Permittee ship from the mine to the facility where they will store the material until it is shipped the material to the refuse pile. The second issue deals

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with coal mine waste that was buried when AML reclaimed abandoned mines in and around the Rilda Canyon Portal Facilities.

The Permittee states in Section R645-301-528 of the MRP that limited amounts of coal mine waste will be transported through the Rilda Canyon portals. They will temporarily store the material in a waste rock storage area shown on Map 500-2. The Permittee will permanently dispose of the coal mine waste at the Deer Creek waste rock site, which is currently permitted. Representative samples of the mine development waste are found in Volume 11 Appendix – Geology Appendix B, samples from cross cuts #6 and #10.

The R645 Rules are vague about the requirements for temporary storage of coal mine waste (R645-301-528.320). The Division requires that the operation plan contain limits on the length and the amount of coal that can be temporary stored.

The second issue is the remaining of coal mine waste from a 0.7 acre previously reclaimed site (the LeRoy Mine AML site). The volume of this coal mine waste is estimated at 3,600 tons based on an average depth of 4 ft and a particle density of 60 lbs/ft³ (Section R645-301-528). Samples of this coal mine waste could not be found in Volume 11 Appendix –Geology Appendix B. Please provide a discussion and analytical reports for samples taken of the LeRoy Mine coal mine waste. This waste will either be disposed of the material at the Deer Creek waste rock site or shipped to the Huntington Power Plant where the material will be used for fuel.

The Deer Creek Mine permit allows the Permittee to ship and dispose of any coal mine waste generated at the Deer Creek Mine to the Deer Creek waste rock disposal site. In addition the permit allow the Permittee to ship coal from the mine to an end use facility.

The location of coal mine waste temporary storage area is on map 500-2 in Volume 11. It will be constructed and maintained to comply with R645-301-746. All coal mine waste generated at the Rilda Canyon Facility will be disposed of at the Deer Creek Waste Rock Facility (Hydrology, p. 76).

Excess Spoil:

PacifiCorp adequately addressed this requirement. In Section R645-301-553 of the MRP, PacifiCorp states that they will ship any excess spoil to the permitted waste rock disposal site.

The material generated by building the portals and rock slopes will be coal mine waste, not spoil; all coal mine waste will be disposed at the Deer Creek Mine Waste Rock Disposal Facility (Hydrology, p. 76). Details on the Waste Rock Site are in Volume 10.

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Nevertheless, it states in Volume 11 that excess spoil material generated during the construction of the return and intake portals to access the Hiawatha coal seam will be disposed of either at the Deer Creek Mine Waste Rock Site or stored underground (Hydrology, p. 69) or that an area designated for the disposal of excess spoil and excess spoil structures will be constructed and maintained to comply with R645-301-745 (Hydrology, p. 76).

Findings:

Information provided in the application does not meet the minimum requirements of the R645 Rules. The Permittee must provide the following, prior to approval, in accordance with:

R645-301-553, Samples of the LeRoy Mine coal mine waste could not be found in Volume 11 Appendix – Geology Appendix B or in Appendix - Soils Appendix A. Please provide discussion and analytical reports for samples taken of the LeRoy Mine coal mine waste.

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

R645-301-528.320, The Permittee must include in the coalmine waste handling plan the following: • the maximum amount of coalmine waste that will be at the Rilda Canyon Portal Facilities at any one time • the maximum amount of time that coal mine waste will be temporarily stored at the Rilda Canyon Portal Facilities.

HYDROLOGIC INFORMATION

Regulatory Reference: 30 CFR Sec. 773.17, 774.13, 784.14, 784.16, 784.29, 817.41, 817.42, 817.43, 817.45, 817.49, 817.56, 817.57; R645-300-140, -300-141, -300-142, -300-143, -300-144, -300-145, -300-146, -300-147, -300-148, -301-512, -301-514, -301-521, -301-531, -301-532, -301-533, -301-536, -301-542, -301-720, -301-731, -301-732, -301-733, -301-742, -301-743, -301-750, -301-761, -301-764.

Analysis:

General

PacifiCorp has submitted a plan to minimize disturbance to the hydrologic balance, to prevent material damage, and to support approved post-mining land use. Volume 11 - North Rilda Area details the plan to minimize disturbance to the hydrologic balance related to the Rilda Canyon Portal Facilities, to prevent material damage, and to support approved post-mining land use (Hydrology, p.61).

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Water quality of Rilda Creek will be protected from potential impacts associated with the Rilda Canyon Portal Facilities through a combination sediment control structures and revegetation (Hydrology, p. 67). Sediment control methods include, but are not limited to: retaining sediment within disturbed areas; diverting runoff away from disturbed areas; diverting runoff using protected channels or pipes through disturbed areas so as not to cause additional erosion; using straw dikes, riprap, check dams, mulches, vegetative sediment filters, dugout ponds and other measures that reduce overland flow velocities, reduce runoff volumes or trap sediment (Hydrology, p. 70). Handling earth materials, groundwater discharges, and runoff in a manner that minimizes the potential for pollution will protect surface water quality (Hydrology, p. 61).

Ground Water Monitoring

Monitoring of the described ground-water resources will proceed through mining and continue during reclamation until bond release. Appendix A in Volume 9 - Hydrologic Section, Monitoring gives the details of the monitoring. Equipment and structures used in conjunction with monitoring the quality and quantity of ground water on- and off-site will be properly installed, maintained, operated, and will be removed by PacifiCorp when approved by the Division. Data will be submitted in an electronic format to the Division's Coal Water-Quality Database quarterly for each monitoring location. Monitoring submittals will include analytical results from each sample taken during the quarter. When the analysis of any groundwater sample indicates noncompliance with the permit conditions, PacifiCorp will promptly notify the Division and immediately take actions provided for in R645-300-145 and R645-301-731 (Hydrology, p. 62).

Reference is made to Volume 9 Appendix A for sample documentation and analytical methods and detection, but the detailed Hydrologic Monitoring Program in Volume 9 Appendix A is out of date (January 2002); the most recent version (March 2003) is in Appendix A of Volume 12.

Surface Water Monitoring

Surface water-monitoring stations will continue to be monitored quarterly (when accessible) throughout the operational phase of the mine. Parameters analyzed, locations of all surface monitoring sites, and sampling schedules can be found in Appendix A of Volume 9 - Hydrologic Section. Long-term monitoring sites in Rilda Canyon have been equipped with Parshall style flumes to facilitate monitoring. Monitoring equipment and structures used in conjunction with monitoring the quality and quantity of surface water on- and off-site will be properly installed, maintained, operated, and will be removed by the PacifiCorp when approved by the Division.

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Surface water will be monitored and data will be submitted in an electronic format to the Division's Coal Water-Quality Database quarterly for each monitoring location. Monitoring submittals will include analytical results from each sample taken during the quarter. When the analysis of any surface water sample indicates noncompliance with the permit conditions, PacifiCorp will promptly notify the Division and immediately take actions provided for in R645-300-145 and R645-301-731. For point source discharges, monitoring will be conducted in accordance with 40 CRF Parts 122 and 123, R645-301-751 and as required by the Utah Division of Environmental Health for National Pollutant Discharge Elimination System permit.

Monitoring will continue until the release of the reclamation bond or until an earlier date to be determined after appropriate consultation with local, state, and federal agencies (Hydrology, p. 42).

Reference is made to Volume 9 Appendix A for sample documentation and analytical methods and detection, but the detailed Hydrologic Monitoring Program in Volume 9 Appendix A is out of date (January 2002); the most recent version (March 2003) is in Appendix A of Volume 12.

Acid- and Toxic-Forming Materials and Underground Development Waste

Chemical analyses for the Blind Canyon and Hiawatha coal seams within the permit area are available from drill cores from Energy West drill holes and run-of-mine coal sampling; reference is made to Volume 8 - Geology and Volume 12 - Geology Appendix A. Data on sulfur for the Blind Canyon and Hiawatha Seams are available from drill cores and run-of-mine coal samples; reference is made to Volume 8 - Geology and Volume 12 - Geology section R645-301-624.230 (Hydrology, p. 6-14).

Volume 12 - Geology Appendix C contains a table of analyses for acid- and toxic-forming or alkalinity-producing materials above and below the coal seams to be mined. Volume 11 Appendix Volume - Geology Appendix B includes analyses of acid- and toxic-forming or alkalinity-producing materials related to the Upper Member of the Star Point Sandstone; this is representative of the underground development waste that will be generated during construction of the rock slopes (Hydrology, p. 6-14).

Transfer of Wells

In section R645-301-731.400, the Permittee commits that before final release of bond, exploratory or monitoring wells will be sealed in a safe and environmentally sound manner in accordance with 8645-301-631, R645-301-738, and R645-301-765. Wells will be transferred to another party for further use only with the prior approval of the Division, and the conditions of such transfer will comply with Utah and local laws. The Permittee will remain responsible for

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the proper management of the well until bond release in accordance with R645-301-529 R645-301-551, R645-301-631, R645-301-738, and R645-301-765.

Discharges Into An Underground Mine

Discharges into an underground mine are prohibited unless specifically approved by the Division. Water is one of the materials that can be discharged into a mine, but the discharge must minimize disturbance to the hydrologic balance on the permit area, prevent material damage outside the permit area, and otherwise eliminate public hazards resulting from coal mining and reclamation operations; not result in a violation of applicable water quality standards or effluent limitations; be at a known rate and quality that will meet the effluent limitations of R645-301-751 for pH and total suspended solids (except that the pH and total suspended solids limitations may be exceeded if approved by the Division); and meet with the approval of MSHA.

The plan lists the requirements given in the previous paragraph, followed by a description of the system that will be used to discharge into the mine, but does not specify how the requirements will be met. Section R645-301-513 does not indicate that MSHA has approved this discharge into the mine.

Gravity Discharges From Underground Mines

Two rock slopes will provide access from the Rilda Canyon Portal Facilities to the 1st Right Submains in the Hiawatha Seam. All rock slope development will be in the Hiawatha Seam or the Star Point Sandstone. Two separate surface breakouts will be constructed, one for the mine fan and the other for intake access. The dip of the Hiawatha seam will prevent water from the mine from discharging at the portal facilities. If groundwater is intercepted during the development of the rock slopes, seals will be installed prior to final reclamation to prevent post mine gravity discharge: the plan does not address handling or disposal of this water during construction and operation of the Rilda Canyon facilities.

Water-Quality Standards And Effluent Limitations

Because this facility is on USFS land, there can be no point source discharge. As currently designed, it does not appear there will be any non-point source discharge either, with all drainage from the road and pad areas reporting to the sediment basin and then being pumped into the mine, with any excess being fully contained in the sedimentation pond.

Gray water and most runoff will be collected and pumped underground into abandoned areas of the mine. If the initial collection and pumping system fails, the sedimentation pond is designed to fully contain runoff from a 10-year, 24-hour storm event (Hydrology, pp. 65, 72).

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Discharges of water from areas disturbed by coal mining and reclamation operations will be made in compliance with all Utah and federal water quality laws and regulations and with effluent limitations for coal mining promulgated by the U.S. EPA set forth in 40 CFR Part 434 (Hydrology, p. 77).

Diversions: General

The submittal contains general commitments to follow the R645 Rules for diversions. Calculations of runoff volumes and designs for ditches, culverts, or other diversions are in Volume 11 Appendix Volume - Hydrology Appendix B.

Diversions: Perennial and Intermittent Streams

The creek in Rilda Canyon is intermittent above the NEWUA ground-water capture system and perennial below. A previous plan for the Rilda Canyon facilities included culverting 1,500 feet of the stream. The present proposal does not include any culverting or other diversion of the Rilda Canyon stream.

Separate drainage systems will be provided at the Rilda Canyon Portal Facility for undisturbed and disturbed collection systems. The undisturbed system will collect water above the portal site and from side slopes adjacent to the site and will convey it past the disturbed area into Rilda Creek. The disturbed system will collect runoff from portal area, parking lots, storage areas and bathhouse area and will convey it to the sedimentation pond (Hydrology, p. 73).

Diversions: Miscellaneous Flows

Undisturbed ephemeral drainages on the south-facing slope of North Rilda Ridge will report to Rilda Creek through a series of culverts passing beneath the facility (Hydrology, p. 67).

Stream Buffer Zones

No land within 100 feet of a perennial stream or an intermittent stream will be disturbed by coal mining and reclamation operations unless the Division specifically authorizes coal mining and reclamation operations closer to or through such a stream. The Division may authorize such activities only upon finding that coal mining and reclamation operations will not cause or contribute to the violation of applicable Utah or federal water quality standards and will not adversely affect the water quantity and quality or other environmental resources of the stream; and if there will be a temporary or permanent stream channel diversion, it will comply with R645-301-742.300. The area not to be disturbed will be designated as a buffer zone, and the operator will mark it as specified in R645-301-521.260.

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Mine construction and operations will be within 100 feet of a perennial stream. The Permittee states in section R645-301-731.600 that stream buffer zones will be maintained along Rilda Creek, and signs will be installed to indicate the area beyond which no disturbance shall take place. Water quality of Rilda Creek will be protected from potential impacts associated with the Rilda Canyon Portal Facilities through a combination of sediment control structures and revegetation. Interim revegetation is described in section R645-301-300 Biology and the drainage and sediment control plan is in Volume 11 Appendix Volume - Hydrology Appendix B.

Disturbance will be held to the minimum required to allow construction of the mine entries, bathhouse pad, parking and ancillary facilities on relatively flat areas. All grading and paving will be sloped to the north away from the receiving stream and drain to the sediment pond to minimize potential impacts. Trees and existing vegetation will be left as feasible (Hydrology, pp. 40-41).

When the MRP was amended for underground access to the North Rilda and Mill Fork tracts, a stream buffer zone was established to protect the alluvial/colluvial system of the Right Fork of Right Fork of Rilda Canyon. It was based on the extent of the riparian zone and the angle of draw from the Hiawatha Seam, the lowest seam to be mined (Hydrology, p. 67).

Sediment Control Measures

The Rilda Canyon Portal Facility is near the Rilda Canyon Springs and in an area previously disturbed by coal mining activities. The Permittee states that the drainage and sediment control for the Rilda Canyon Portal Facilities has been designed to conform to the recommendations of the Forest Service and the North Energy Water Users Association and the R645 Rules (Volume 11 Appendix Volume - Hydrology Appendix B, p. 1). The general concept of the plan is:

- A portion of the mine site yard will be paved with asphalt or concrete;
- The mine site and county road will be sloped to the north away from the stream;
- Natural runoff water from the north hillside will be diverted around and beneath the disturbed area via properly sized ditches and culverts;
- Runoff water from the disturbed area will be collected in an engineered, asphalt or concrete ditch and culverts along the north side of the mine site, channeled to a 5,000 gallon runoff collection tank, and pumped into the mine;
- Any overflow from the runoff collection tank will flow into a buried culvert and directly into the sediment pond to be constructed below the mine site;
- In the unlikely event of a simultaneous failure of the pump and overflow pipe at the collection tank, any disturbed area runoff would still flow to the sedimentation pond via a surface ditch;
- A berm and chain link fence will be installed along the south side of the mine site;

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- A jersey barrier and fence will also be used to separate the undisturbed and disturbed area drainages along the north side of the mine site.

Siltation Structures: General

On page 68 of the Hydrology Section, the Permittee commits that siltation structures will be constructed and maintained to comply with R645-301-742.214. Any siltation structure that impounds water will be constructed and maintained to comply with R645-301-512.240, R645-301-514.300, R645-301-515.200, R645-301-533.100 through R645-301-533.600, R645-301-733.220 through R645-301-733.224, and R645-301-743.

Siltation structures for an area will be constructed before beginning any coal mining and reclamation operations in that area and, upon construction, will be certified by a qualified registered professional engineer to be constructed as designed and as approved in the reclamation plan (Hydrology, p. 71).

Details concerning design, construction and maintenance of sediment control measures, siltation structures, sedimentation pond, and impoundments are in Volume 11 Appendix Volume - Hydrology Appendix B: Drainage and Sediment Control Plan.

Siltation Structures: Sedimentation Ponds

A temporary sediment pond will be constructed below the proposed surface facilities. It is designed to contain runoff from a 10-year, 24-hour event, with a combination of principal and emergency spillways that in combination will safely discharge runoff from a 10-year, 6-hour event.

Although all of these do not apply to a full-containment pond, the Permittee commits that the pond will be as close as possible to the disturbed area and out of perennial streams and be designed, constructed, and maintained to provide adequate sediment storage volume; provide adequate detention time to allow the effluent from the ponds to meet Utah and federal effluent limitations; provide a nonclogging dewatering device adequate to maintain the detention time required under R645-301-742.221.32; minimize, to the extent possible, short circuiting; provide periodic sediment removal sufficient to maintain adequate volume for the design event; ensure against excessive settlement; be free of sod, large roots, frozen so and acid- or toxic-forming coal processing waste; and be compacted properly (Hydrology, pp. 71-72)p. .

Preliminary plans for the Rilda Canyon Portal Facilities include construction of single sedimentation pond. Sedimentation pond designs will comply with R645-301-742.220 and qualifying criteria of the MSHA, 30 CFR 77.216(a). Analyses utilized to determine the size and hydraulics related to the construction and operation of the sedimentation pond are in Volume 11

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Appendix Volume - Hydrology Appendix B: Drainage and Sediment Control Plan (Hydrology, pp. 71 – 72).

Sedimentation ponds, whether temporary or permanent, will be designed in compliance with the requirements of R645-301-356 .300, R645-301-356 .400, R645-301-513 .200, R645-301-742.200 through R645-301-742 .240, and R645-301-763. According to page 69 of the Hydrology section, no permanent structures - including sediment ponds - are planned for the Rilda Canyon Portal Facilities; however, page 43 of Volume 11 Appendix Volume -Hydrology Appendix B: Drainage and Sediment Control Plan describes construction of a temporary pond to be used during construction and a permanent sedimentation pond for mine operation: the Permittee needs to revise page 43 so it is clear there will be no permanent impoundment or sedimentation pond at the Rilda Canyon facilities.

Siltation Structures: Other Treatment Facilities

There is no Other Treatment Facility planned for the Rilda Canyon portals. A large tank is planned as part of the sediment control; however, this is not an Other Treatment Facility as defined in the R645 Rules because it will not have a point source discharge.

Domestic waste or *black water* will be held on site in a holding tank then transported to a treatment facility (Hydrology, p. 72).

Siltation Structures: Exemptions

All disturbed areas at the Rilda Canyon facilities that do not report to the sedimentation pond will be treated with ASCAs. The Permittee does not identify any areas for exemption to the requirements of R645-301-742.200 and -763.

Discharge Structures

Section R645-301-744 states that discharge from the sedimentation pond, temporary impoundments, and diversions will be controlled by energy dissipators, riprap channels, and - where necessary - other devices. Discharge structures will be designed according to standard engineering design procedures.

Discharge structures will be located, maintained, constructed and reclaimed to comply with R645-301-733 R645-301-734, R645-301-743, R645-301-745 and R645-301-760 (Hydrology, p. 78).

Reference is made to Volume 11 Appendix Volume - Hydrology Appendix B: Drainage and Sediment Control Plan. The culvert outlet from the sedimentation pond will be equipped

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with an adequately sized riprap apron to slow the combined flow sufficiently to prevent erosion of the downstream channel (Hydrology, p. 42). Riprap or other protection such as culverts or concrete will be placed at all inlets and outlets to prevent scouring. Riprap will consist of substantial, non-slaking rock material of adequate size (Hydrology, p. 33).

Impoundments

The Permittee did not give the Division adequate designs for the sediment pond. The designs and calculations for the sediment pond are in Volume 11 Appendix Volume.

Items missing from the designs for the sediment pond were:

- Safety factor calculations. The pond must have a static safety factor of 1.3 or greater.
- Minimum lift thickness. The Permittee must state how they will achieve 95% compaction if the soil is placed in 15-in lifts and what standard will be used to measure 95% compaction. See Section 3.1 e of Hydrology – Appendix B, Volume 11 Appendix Volume.
- Protection from sudden drawdown.

The Permittee's designs for the sediment pond are in hydrology section of Volume 11 Appendix. The designs include plates and cross section prepared by a professional geologist.

PacifiCorp did not include design for the temporary sediment storage basin.

Impoundments will be located, maintained, constructed and reclaimed to comply with R645-301-733 R645-301-734, R645-301-743, R645-301-745 and R645-301-760 (Hydrology, p. 78).

Section R645-301-530 discusses a temporary basin, located on the east side of the parking lot area, that will provide sediment control for the 9 acres of the portal facilities area. The basin will be divided into two compartments, a 7,541-gallon Basin #1 for gray water (boot wash, showers, floor drains, etc.) and an 18,506-gallon Basin #2 for washdown and precipitation runoff. The containment basins and pumps will be housed in 30-ft x 60-ft pre-engineered building.

Basin #1 will be pumped directly into an abandoned area of the underground mine workings, which dip to the east away from any potential public water source in Rilda Canyon. The waterline into the mine will be installed by drilling approximately 800 feet through the Star Point Sandstone to the abandoned workings of the 2nd Right longwall panel. The drill hole will be cased with steel or HDPE pipe.

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Basin #2 will overflow into Basin #1 and be pumped into the mine. If the runoff a storm event is larger than Basin #2 can contain, then Basin #2 will overflow into the emergency spillway and flow through an 18-in CMP culvert to the sedimentation pond at the east end of the disturbed area.

The description of this system in section 731.512.7 indicates there will be a 10,000-gallon tank for washdown and runoff, which will report to a collection basin, from where the water will be pumped into the mine.

The general concept of this system is described in the plan, but some important aspects are not clear. Are there going to be tanks or "basins" – indicating ponds? If tanks, will they be buried or above the surface? Will runoff need to be pumped or will it flow directly into the tank or basin? Is there a separate 10,000-gallon tank before the collection basin for washdown and gray water? Will any of the water pumped into the mine eventually be discharged at the Deer Creek Mine portals; will it be used for mine operations?

Ponds, Impoundments, Banks, Dams, and Embankments

No permanent structures including impoundments are planned for the Rilda Canyon Portal Facilities. A temporary sedimentation pond and containment berms will be designed and constructed as specified by the R645-301-733 and R645-301-743. Design specifications are in Volume 11 R645-301-743 and Volume 11 Appendix Volume - Hydrology Appendix B (Hydrology, p. 69).

There will be no banks, dams, or embankments.

Water Replacement

The Permittee will promptly replace any State-appropriated water supply that is contaminated, diminished or interrupted by UNDERGROUND COAL MINING AND RECLAMATION ACTIVITIES conducted after October 24, 1992, if the affected water supply was in existence before the date the Division received the permit application for the activities causing the loss, contamination or interruption. The baseline hydrologic and geologic information required in R645-301-700 will be used to determine the impact of mining activities upon the water supply (Hydrology, p. 66).

In 1993, PacifiCorp and NEWUSSD agreed upon mitigation plan that included construction of a slow sand water treatment plant with a 0.5 million-gallon storage reservoir. Construction of the plant and reservoir was completed and the plant brought on-line in November 1994. Rilda Springs as one of the sources of water. PacifiCorp monitors the springs in Rilda Canyon for potential mining related impacts (Hydrology, p. 51).

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To alleviate concerns with the proposed Rilda Canyon Portal Facilities, Pacific Corp and NEWSSD are investigating re-location of the Rilda Canyon Springs collection system from their current location to the mouth of the right fork of Rilda Canyon above the portal facilities. The proposed collection system study is shown on Engineering Section Map 500-2. Pacific Corp will submit an investigation plan to the Division outlining hydrologic objectives of the site investigation.

The current proposal does not rely on this relocation, and the outcome of the geologic investigations at the Proposed Spring Collection area does not affect the feasibility of the Rilda Canyon Facilities project as proposed.

Findings:

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

R645-301-533.110, The Permittee must include the supporting calculations for the safety factor analysis used to determine that the sediment pond has a safety factor of 1.3 or greater.

R645-301-533.210, The Permittee must show how they will achieve a 95% compaction level in 15-in lifts.

R645-301-533.300, The Permittee must show that the sediment pond will be safe during periods of rapid drawdown.

R645-301-533, The Permittee must provide the Division with designs for the temporary sediment storage basin.

R645-301-732.210, 733.200, The Permittee needs to revise page 43 of Volume 11 Appendix Volume -Hydrology Appendix B: Drainage and Sediment Control Plan so it is clear there will be no permanent impoundment or sedimentation pond at the Rilda Canyon facilities.

R645-301-742, The general concept of the water collection and sediment control system is described in the plan, but the Permittee needs to clarify some information, especially in sections R645-301-530, 731.512.7, and 728 (the PHC):
• Is this system to use tanks or "basins", which can indicate ponds?
• If tanks, will they be buried or above the surface?
• Will runoff need to be pumped or will it flow

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directly into the tank or basin? • Is there a separate 10,000-gallon tank before the collection basin for washdown and gray water? • Will all of the water pumped into the mine eventually be discharged at the Deer Creek Mine portals, or will there be separate systems for mine discharge and surface water pumped underground? • Will water pumped underground be used for mine operations?

R645-301-731.511, The Permittee needs to specify how requirements 731.511.1 through 731.511.4 will be met. Section R645-301-513 does not indicate that MSHA has approved discharge into the mine.

R645-301-731.520, The plan does not address handling or disposal of water discharging from the rock slope tunnels during construction and operation of the Rilda Canyon facilities.

R645-301-731.200, Reference is made to Volume 9 Appendix A for sample documentation and analytical methods and detection, but the detailed Hydrologic Monitoring Program in Volume 9 Appendix A is out of date (January 2002); the most recent version (March 2003) is in Appendix A of Volume 12.

R645-301-121.200, 743.120, The runoff collection tank or basin is described as 5,000 gallons in some places, as 10,000 gallons in others. The Permittee needs to clarify the size and design of this tank or basin.

SUPPORT FACILITIES AND UTILITY INSTALLATIONS

Regulatory Reference: 30 CFR Sec. 784.30, 817.180, 817.181; R645-301-526.

Analysis:

PacifiCorp adequately addressed the requirements of this section. PacifiCorp provided a detailed description of each support facility and utility installation in Section R645-301-521-180 of the MRP.

Findings:

The information provided in the proposed amendment is considered adequate to meet the minimum general requirements for the Support Facilities and Utility Installations as required by the R645 Rules.

SIGNS AND MARKERS

Regulatory Reference: 30 CFR Sec. 817.11; R645-301-521.

Analysis:

PacifiCorp met the requirements for placing signs and markers. They committed to meet the relevant requirements as listed in R645-301-521.200.

PacifiCorp number the signs and markers section of the MRP as R645-301-521.190 when the proper number is R645-301-521.200.

Findings:

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

R645-301-521.200 and R645-301-121.200, The Permittee correctly label the Signs and Markers section of the MRP as R645-301-521.200 instead of R645-301-521.190.

USE OF EXPLOSIVES

Regulatory Reference: 30 CFR Sec. 817.61, 817.62, 817.64, 817.66, 817.67, 817.68; R645-301-524.

Analysis:

General Requirements

PacifiCorp did not meet the requirements of the explosives section of the R645 Rules. In Section R645-301-524.200 of the MRP, PacifiCorp states that they will submit designs if the power charge is more than 5 pounds. R645-301-524.200 and R645-301-525.220 both require that a permit submit blast designs for all blasting. The 5-pound limit is for preblasting survey.

Findings:

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

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R645-301-524.200 and R645-301-524.220, The Permittee must commit to supply the Division with a blasting plan before any surface blasting activities at the North Rilda Portals Facilities

MAPS, PLANS, AND CROSS SECTIONS OF MINING OPERATIONS

Regulatory Reference: 30 CFR Sec. 784.23; R645-301-512, -301-521, -301-542, -301-632, -301-731, -302-323.

Analysis:

Mining Facilities Maps

PacifiCorp did not meet the minimum requirements for mine facilities maps. At a minimum PacifiCorp must include cross sections every 50 feet for the entire disturbed area. The disturbed area includes the sediment pond and the soil storage area. The Division needs those cross sections in order to evaluate the operation plan.

PacifiCorp must include topographic maps of the entire disturbed area at a scale of 1 in equals 100 ft. The Division needs those maps in order to evaluate the operation plan.

Alternate sediment control areas (ASCA) are on map 700-5. Snow storage areas are on map 700-2.

Mine Workings Maps

PacifiCorp did not meet the requirements of R645-301-521. PacifiCorp must give the Division a mine working map that shows:

- The location and extent of known workings of inactive and abandoned mines.
- The location of all active mines.
- The location of areas where mine will occur.

Map MFU1840D, Deer Creek Mine Mill Fork Leas ML-48258 Hiawatha Mine Plan, does not show the location of the North Rilda Canyon Portals and rock tunnels. The Division needs one map that shows the entire Hiawatha Mine.

While the location of inactive and abandoned mines is shown on several maps including DS1878F, Deer Creek Mine Rilda Canyon Pre-Disturbance Topography, the relationship between the active and abandoned mines is not clearly shown.

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Monitoring and Sampling Location Maps

HM-1, the Water Monitoring Location Map, is in Volume 9 - Hydrologic Section. There is no new monitoring for the Rilda Canyon facilities.

Certification Requirements

PacifiCorp had all the maps certified that needed certification.

Findings:

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

R645-301-521.150 and R645-301-521.190, The Permittee must include operational maps at a scale of 1 in equals 100 ft and cross sections on 50ft intervals for the entire disturbed area associated with the North Rilda Portal Facilities.

R645-301-521.110 and R645-301-521.140 The Permittee must include mine map that shows all proposed mining in the Hiawatha Seam and the workings of the abandoned mines in and around the North Rilda Portal Facilities site.

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GENERAL REQUIREMENTS

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

Analysis:

Before abandoning a permit area or seeking bond release, PacifiCorp will ensure that all temporary structures are removed and reclaimed, and that all sedimentation ponds, diversions, impoundments and treatment facilities meet the requirements of R645-301 and R645-302 for permanent structures, have been maintained properly, and meet the requirements of the approved reclamation plan for permanent structures and impoundments. PacifiCorp will renovate such structures if necessary to meet the requirements of R645-301 and R645-302 and to conform to the approved reclamation plan. Information related to the reclamation plan for the Rilda Canyon Portal Facilities is in R645-301-540 and Volume 11 Appendix Volume - Hydrology Appendix B (Hydrology, p. 78).

The vegetation- and land use- related information below provides commentary of the reclamation plan and how the plan addresses the R645 Rules.

Findings:

Information provided in the plan meets the minimum Reclamation - General Requirements of the R645 Rules.

POSTMINING LAND USES

Regulatory Reference: 30 CFR Sec. 784.15, 784.200, 785.16, 817.133; R645-301-412, -301-413, -301-414, -302-270, -302-271, -302-272, -302-273, -302-274, -302-275.

Analysis:

The postmine land use is grazing, wildlife, and recreation. During mining construction, the Permittee agrees to construct a new trailhead and parking pad at the east end of the facilities

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site. Reclamation will include removal of the trail extension and parking pad as well as restoring road to the original location.

Findings:

Information provided in the plan meets the minimum Reclamation - Postmining Land Uses requirements of the R645 Rules.

PROTECTION OF FISH, WILDLIFE, AND RELATED ENVIRONMENTAL VALUES

Regulatory Reference: 30 CFR Sec. 817.97; R645-301-333, -301-342, -301-358.

Analysis:

The application does not address this section of the R645 Rules with respect to Big Game species common to the proposed Rilda Canyon development area.

The Division recommends relocating all the information in Section R645-301-342 in the Operations section under R645-301-330. This information considers protection only during operations. The Permittee must address wildlife concerns during reclamation and postmining phases. Also, provide an adequate plan for the protection of wildlife resources during reclamation, including weekly water monitoring. (R645-301-342, R645-301-358.) Describe plans for avoiding and protecting the stream channel during reclamation work. Consider enhancement measures for wildlife and compatibility of plant species and wildlife grazing requirements.

Findings:

The information provided in the application is not adequate to meet the requirements of this section of the R645 Rules. Prior to approval the Permittee must provide the following in accordance with:

R645-301-333, -301-342, -301-358, the Permittee must address these sections of the R645 Rules as related to the reclamation plan for the Rilda Canyon development area.

Information provided in the plan does not meet the minimum Reclamation - Protection of Fish, Wildlife, and Related Environmental Values requirements of the R645 Rules. Prior to approval, the Permittee must act in accordance with the following:

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R645-301-342, R645-301-358, Address wildlife concerns during reclamation and postmining phases. Also, provide an adequate plan for the protection of wildlife resources during reclamation, including weekly water monitoring.

APPROXIMATE ORIGINAL CONTOUR RESTORATION

Regulatory Reference: 30 CFR Sec. 784.15, 785.16, 817.102, 817.107, 817.133; R645-301-234, -301-412, -301-413, -301-512, -301-531, -301-533, -301-553, -301-536, -301-542, -301-731, -301-732, -301-733, -301-764.

Analysis:

The definitions of Approximate Original Contour (AOC) are contained in SMCRA and the R645 Rules. The objectives of AOC is to backfill and grade the site to a configuration resembling the topography of the land prior to mining, and to blend the site into the drainage pattern of the surrounding terrain. In addition, the permittee must meet reclamation performance standards including: controlling erosion; establishing mass stability; and establishing permanent, diverse, and effective vegetative cover.

PacifiCorp did not meet the minimum AOC requirements. The analysis of the AOC plan is discussed as follows.

Final Surface Configuration

PacifiCorp did not request a variance from AOC. The Division reviewed all the pre-mining and postmining topographic maps and cross sections to determine if the postmining topography, excluding elevation, closely resembles its pre-mining configuration. The Division's findings are as follows:

- The Permittee did not provide enough maps and cross sections for the Division to evaluate the entire area.
- The area covered in the cross sections on Map 500-3 will be restored to the approximate original surface configuration. However, those cross sections only cover a portion of the main facilities area and none of the subsoil storage area.

All Highwalls to be Eliminated

All highwalls associated with the North Rilda Portal Facilities area will be eliminated during final reclamation. The cross sections for the portal areas are shown on Map 500-3 cross sections 2+50 and 5+00. The cross sections show that the highwalls will be eliminated. The

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Permittee also states in Section R645-301-550 of the MRP that all highwalls associated with the North Rilda Portal Facilities will be eliminated.

Hydrology

The main concerns with hydrology are that PacifiCorp restore drainages, control sediment, and prevent hazardous and toxic discharges. The Division considers that PacifiCorp will meet those conditions when they meet the hydrologic reclamation requirements.

Findings:

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

R645-301-553.110, The Permittee must include a reclamation plan with enough detail for the Division to evaluate the plan to return the site to the approximate original contours. The Division addresses specific deficiencies such as inadequate maps and cross sections are addressed in other sections of the TA.

BACKFILLING AND GRADING

Regulatory Reference: 30 CFR Sec. 785.15, 817.102, 817.107; R645-301-234, -301-537, -301-552, -301-553, -302-230, -302-231, -302-232, -302-233.

Analysis:

General

The plan indicates in Section R645-301-232.500 that 97,259.65 yd³ subsoil will be salvaged for replacement to approximate original contour at final reclamation.

Due to the very permeable sandy gravel below the surface soils, the importation of clay or use of a liner for construction of a sediment pond was suggested in the geotechnical reports included in Appendix F of Volume 11- Appendix – Engineering. The construction of a sediment pond is briefly mentioned in Sections 645-301-521.180, 645-301-526, and 645-301-732.200, 645-301-742.220. More detail is provided in Volume 11 Appendix – Hydrology Appendix B section 3. Section 3 indicates that native fill will be used where possible. What is the likelihood of importation of clay and how will the material be handled during reclamation?

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PacifiCorp did not adequately address all of the general backfilling and grading requirements because they did not provide slope stability calculations for the reclaimed slopes. The general backfilling and grading requirements are as follows:

Achieve Approximate Original Contour Requirements

The Division addressed the approximate original contour regulations in the Approximate Original Contour Restoration section of the TA.

Eliminate All Highwalls

PacifiCorp will eliminate all highwalls during final reclamation. See the Approximate Original Contour Restoration section of the TA for more details.

Eliminate All Spoil Piles and Depressions

There will be no spoil piles at the North Rilda Portal Facilities. PacifiCorp will not leave any depressions except small pocks needed for reclamation. Any spoil generated during the operational phase will be disposed of in the waste rock facility.

Slope Stability

PacifiCorp did not address this issue.

Variance from Approximate Original Contour Requirements

PacifiCorp did not request a variance from the approximate original contour requirements.

Settle and Revegetated Fill

There is no settled and revegetated fill at the North Rilda Portal Facilities. Some areas contain abandoned/reclaimed coal mines. The Division does not consider the abandoned/reclaimed coal mines to be settled and revegetated fill. Rather the Division considers those areas undisturbed.

Spoil

There is no spoil at the site, nor does PacifiCorp plan to generate spoil at the North Rilda Portal Facilities. If spoil is generated during the operational phase PacifiCorp will dispose of the material in the permitted waste rock site.

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Disposal of coal processing waste and underground development

PacifiCorp does not propose any changes to the current approved plans for disposal of coal processing waste or underground development waste.

Cut-and-fill terraces

PacifiCorp does not propose any cut-and-fill terraces at the North Rilda Portal Facilities site.

Previously Mined Areas

None of the rules that deal with previously mined areas apply to the North Rilda Portal Facilities. The main facilities area consists of 9 acres of which 1.5 were previously disturbed by mining and reclaimed my AML to Title IV standards. Although the areas in and around the North Rilda Protal Facilities area were reclaimed by AML the Division still considers those areas unreclaimed. By definition of R645-100 previously mined area means:

Land affected by coal mining and reclamation operations prior to August 3, 1977, that has not be reclaimed to the standards of Ut. Admin. R645 or 30 CFR chapter VII.

The rules that apply to previously mined area deal with highwalls (R645-301-553.500) and settled and revegetated fill (R645-301-537.210). There are no highwalls associated with previously mining activities in the disturbed areas associated with the North Rilda Portals Facilities area. In addition, PacifiCorp did not request to leave any areas as is because of settled and revegetated fill.

The Division acknowledges that mining occurred in and around the area and that the mines were abandoned and later reclaimed by AML. PacifiCorp will encounter buried coal mine waste during construction. The Division acknowledges the presence of buried coal mine waste and has taken that into consideration in evaluating the mining and reclamation plan. The Division will allow PacifiCorp to remove coal mine waste during construction and dispose of the material in the refuse site or use the material for fuel. All coal mine waste on site during reclamation must be reclaimed to Title V standards. In general the Division requires that the permittee restore the site to the reclaimed condition.

Findings:

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

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R645-301-553.130, The Permittee must show that the reclaimed slopes will have a minimum safety factor of 1.3 and that the slopes angles will not exceed the angle of repose.

Information provided in the application does not meet the minimum requirements of the R645 Rules. The Permittee must provide the following, prior to approval, in accordance with:

R645-301-537, What is the likelihood of importation of clay for construction of the sediment pond and how will the material be handled during reclamation?

MINE OPENINGS

Regulatory Reference: 30 CFR Sec. 817.13, 817.14, 817.15; R645-301-513, -301-529, -301-551, -301-631, -301-748, -301-765, -301-748.

Analysis:

Casing and Sealing of Wells

All wells will be managed to comply with R645-301-748 and R645-301-765. Each water well will be cased, sealed, or otherwise managed, as approved by the Division (Hydrology, p. 78).

PacifiCorp met the minimum requirements for sealing mine openings. The plan to close the mine openings at the North Rilda Portal Facilities area consists of:

- Constructing double solid-block seals at least 25 feet from the opening.
- Backfill from the opening to the block stopping with noncombustible fill.
- Plug the drill hole for pumping gray water into the mine by inserting a plug and then filling the hole with cement.

The Division considers those procedures adequate because they will prevent access to the mine workings. Since the Division found that water discharges from the portals will not occur, the closure plan will prevent acid or toxic materials from draining into surface waters.

Findings:

The information in the MRP meets the minimum requirements of the Mine Openings requirements of the R645 Rules.

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TOPSOIL AND SUBSOIL

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

Analysis:

Redistribution

Topsoil will be hauled to the surface facilities area using the county road. Rubber-tired backhoes, trackhoes, dozers and front-end loaders will then redistribute the topsoil. Travel over the redistributed topsoil will be minimized.

What is the projected replacement depth? Area?
How will the topsoil storage site be reclaimed?

Findings:

Information provided in the application does not meet the minimum requirements of the R645 Rules. The Permittee must provide the following, prior to approval, in accordance with:

R645-301-240, • The plan should indicate the approximate topsoil replacement depth and the replacement area. • The plan should outline reclamation steps to be taken at the topsoil storage site and construction fill stockpile site.

ROAD SYSTEMS AND OTHER TRANSPORTATION FACILITIES

Regulatory Reference: 30 CFR Sec. 701.5, 784.24, 817.150, 817.151; R645-100-200, -301-513, -301-521, -301-527, -301-534, -301-537, -301-732.

Analysis:

Reclamation

There will be no roads within the pad areas.

Retention

PacifiCorp did not fully address this issue. In Section R645-301-553.100, PacifiCorp commits to returning County Road 306 to the design specifications of Emery County. However,

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PacifiCorp does not state what the design specifications are. Without that information, the Division cannot evaluate the reclamation plan.

In Volume 11 Appendix Volume, PacifiCorp stated in the reclamation section of Appendix B, Reclamation Hydrology, that the County Road would remain after reclamation. PacifiCorp needs to be consistent with the road reclamation plan.

Findings:

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

R645-301-527 and R645-301-533, The Permittee must include detailed designs for the reconstructed section of County Road 306.

R645-301-121.200, PacifiCorp must be consistent about the reclamation plan for the County Road. In Volume 11 Appendix Volume in the Reclamation Hydrology Section 4.1 General, PacifiCorp states, that County Road 306 will remain as is after reclamation. Note: some of the culverts will be modified. While in Section R645-301-553.100 of the MRP, PacifiCorp states that the County Road will be returned to designs specified by Emery County.

HYDROLOGIC INFORMATION

Regulatory Reference: 30 CFR Sec. 784.14, 784.29, 817.41, 817.42, 817.43, 817.45, 817.49, 817.56, 817.57; R645-301-512, -301-513, -301-514, -301-515, -301-532, -301-533, -301-542, -301-723, -301-724, -301-725, -301-726, -301-728, -301-729, -301-731, -301-733, -301-742, -301-743, -301-750, -301-751, -301-760, -301-761.

Analysis:

Hydrologic Reclamation Plan

The reclamation plan is in section R645-301-540. All slopes will be compatible with the postmining land use of the area and will provide adequate drainage. Because the subdrainage areas in the reclaimed area are ephemeral and rarely receive flow, the drainage systems through the site will be armored with rock but not designed as a riprapped channel. Final surface configuration will channel any drainage that may occur from undisturbed areas through the reclaimed armored channels. Drainage will then be conveyed to road culverts that are piped to Rilda Creek. Silt fences or straw bales will be located in the reclaimed drainage to treat and control sedimentation (Engineering p. 46).

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Siltation structures and diversions will be located, maintained, constructed and reclaimed according to plans and designs given under R645-301-732, R645-301-742 and R645-301-763 (Hydrology, p.77). Before abandoning the permit area or seeking bond release, Pacific Corp will ensure that all temporary structures are removed and reclaimed (Hydrology, p. 78). The road and culverts will be removed during final reclamation from the site and the Forest Development Trail will be re-established (Engineering p. 39).

All permanent sedimentation ponds, diversions, impoundments and treatment facilities meet the requirements of R645-301 and R645-302 for permanent structures, have been maintained properly, and meet the requirements of the approved reclamation plan for permanent structures and impoundments (Hydrology, p. 78). As far as is known, there are no permanent structures at the Rilda Canyon facilities.

Monitoring

Surface water-monitoring stations (Appendix A) will continue to be monitored quarterly (when accessible) throughout the operational phase of the mine. Post-mining monitoring of surface water will continue at representative stations determined with the aid and approval of DOGM. Representative surface water stations will be monitored biannually during high and low flow conditions. Monitoring will continue until the release of the reclamation bond or until an earlier date to be determined after appropriate consultation with local, state, and federal agencies (Hydrology, p. 42).

Monitoring of the described ground-water resources will proceed through mining and continue during reclamation until bond release. Removal of the Rilda Canyon piezometers will be approved by the Division in conjunction with the Utah State Division of Water Rights (Hydrology, p.62).

Findings:

Information provided in the plan meets the minimum Hydrologic Reclamation Plan requirements of the R645 Rules.

CONTEMPORANEOUS RECLAMATION

Regulatory Reference: 30 CFR Sec. 785.18, 817.100; R645-301-352, -301-553, -302-280, -302-281, -302-282, -302-283, -302-284.

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Analysis:

General

The Permittee plans to use the same seed mixes for interim and final reclamation.

The reclamation project will begin at the far western boundary and proceed down Rilda Canyon. Seeding and planting will immediately follow backfilling and grading as they work down the canyon.

Findings:

Information provided in the plan meets the minimum Reclamation - Contemporaneous Reclamation requirements of the R645 Rules.

REVEGETATION

Regulatory Reference: 30 CFR Sec. 785.18, 817.111, 817.113, 817.114, 817.116; R645-301-244, -301-353, -301-354, -301-355, -301-356, -302-280, -302-281, -302-282, -302-283, -302-284.

Analysis:

Revegetation: General Requirements

Tables 300-3 and 300-4 provide species list for the pinyon/juniper and sage/grass seed mixes, respectively. Currently, there is no specialized seed mix for the white fir/aspens community type. The MRP states that this community will receive the pinyon/juniper mix at time of reclamation. The Division is concerned about using the pinyon/juniper seed mix so close to the riparian area. The Division requires either a separate seed mix for the white fir/aspens community or a more appropriate mix in conjunction with transplants nearest the stream channel (R645-301-353.240).

The seed mixes include a variety of species and a proportion of plant forms than appear similar to those found in associated reference areas. The Division, however, requires the replacement of rabbitbrush and saltbrush with more appropriate shrub species, such as those found in the three primary community types (R645-301-353.240). Both the rabbitbrush and saltbrush can be fast spreading and out compete more desired species for the community types of the area.

The Division suggests planting container plants of the shrub species listed in the seed mixes. These transplants will augment seeding in areas commonly difficult for seed to germinate

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e.g., steep slopes, southern exposures and extremely windy sites. Transplants will contribute to soil stabilization (R645-301-353.140) and wildlife habitat enhancement (R645-301-342.100).

Revegetation: Timing

Table 300-1 is a general reclamation timetable. According to this timetable, phase I (earthwork) begins during winter months, mulching, seeding, and planting during the growing season. The reclamation project will begin at the far western boundary and proceed down Rilda Canyon. Seeding and planting will immediately follow backfilling and grading as they work down the canyon.

Table 300-2 is monitoring program timetable relating to bond release. The Permittee plans to conduct vegetation monitoring during the 4th, 8th, 9th, and 10th years following reclamation.

Revegetation: Mulching and Other Soil Stabilizing Practices

The Permittee will conduct earthwork immediately followed by seedbed preparation and seeding. They will begin the project at the far west end of the North Rilda Canyon boundary and work down the canyon. Seedbed preparation will include:

- Amending the soil with 2000lbs./acre of certified noxious weed free alfalfa hay.
- Pocking to provide water-catching sites and incorporate the hay.
- Seeding with native seed mixes.
- Hydromulching with 1500lbs./acre of wood fiber or other acceptable product.
- Applying a tackifier at the manufacturers recommended rate.
- Placing signs around the site to limit access and ensure slope protection.

The Permittee may consider using the track hoe to cast some dead trees and large rocks back onto the reclaimed surface. This debris would provide solar protection and increases available moisture in small areas as well as increases topographic and vegetation diversity.

Revegetation: Standards For Success

The Permittee must use the Division's approved sampling techniques listed in the Division's "Vegetation Guidelines, Appendix A". Qualitative surveys will include sampling reclaimed sites for cover, woody species density, and diversity in years four, eight, nine, and ten. The Permittee must include scheduling plans for measuring productivity during the extended period of responsibility (R645-301-357.200).

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The disturbed area has three different community types. The Division will measure success of the revegetated sites to three reference areas, unless the Permittee provides a viable reason for having only two as currently proposed. Success measurements include evaluating the effectiveness and permanence of the vegetation for the approved postmine land use as well as the extent of cover compared to the reference area. The Permittee will meet success standards when ground cover and production rates are not less than 90% of the standard at the 90% confidence level.

Two of the postmine land uses for this plan are wildlife and recreation. Success standards for wildlife require that tree and shrub stocking rates, planting arrangement, and value are appropriate for the proposed postmine land use. The Division and coordinating agencies determine the minimum tree and shrub parameters. The Permittee will meet success standards when:

- Density attains at least set rates.
- Trees and shrubs are healthy.
- 80% of trees and shrubs are in place at least 60% of the extended responsibility period.

The Permittee must provide the stocking rates and suggested stocking species (R645-301-356.231). This stocking information must come from the Division. The Permittee must also discuss related information concerning tree and shrub stocking (R645-301-356.232, R645-301-357.310).

There is no plan to irrigate following reclamation.

The Permittee plans to implement weed and rodent control plans only if needed. There are no details in the plan and no discussion that DWR approve a rodent control plan. The Permittee must remove the discussion or provide the Division with a detailed plan for review (R645-301-357.332.). The Division recommends removing the discussion and if a problem arises to contact the Division at that time. The Division contacts coordinating agencies and develops a reasonable plan.

The Permittee plans to follow R645 Rules associated with repair of rills and gullies.

Findings:

Information provided in the plan does not meet the minimum Reclamation – Revegetation requirements of the R645 Rules. Prior to approval, the Permittee must act in accordance with the following:

- R645-301-353.240**, • Develop either a separate seed mix for the white fir/aspens community or a more appropriate mix in conjunction with transplants nearest the

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stream channel. • Replace rabbitbrush and saltbrush with more appropriate shrub species, such as those found in the three primary community types.

R645-301-357.200, Include scheduling plans for measuring productivity during the extended period of responsibility.

R645-301-356.231, Provide the stocking rates and suggested stocking species.

R645-301-356.232, R645-301-357.310, Discuss related information concerning tree and shrub stocking

R645-301-357.332, Remove the discussion on rodents or provide the Division with a detailed plan for review.

STABILIZATION OF SURFACE AREAS

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

Analysis:

Small depressions will be constructed for the purpose of retaining moisture and minimizing erosion (Section R645-301-552). Pocks will measure 1.5 ft wide and 3 ft deep. This depth of pocks may be too extreme for the reclaimed slopes less than 2h:1v. The Division recommends 18 in. by 24 in. in the 2000 Reclamation Manual.

Boulders larger than 1 ft in diameter will be segregated for use in final reclamation (R645-301-232.500) to enhance the reclamation surface (R645-301-244).

On slopes greater than 20%, a soil tackifier will be used (R645-301-244).

Rills and gullies will be reworked if they affect the post mining land use (wildlife and grazing and recreation) or if they affect water quality standards in Rilda Creek (R645-301-244). The performance standard indicates that the topsoil will be maintained and redistributed according to plan. However, The plan should establish which water quality parameter will be monitored, turbidity? Specific conductivity? Total Settleable Solids (TSS)?

Findings:

Information provided in the application does not meet the minimum requirements of the R645 Rules. The Permittee must provide the following, prior to approval, in accordance with:

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R645-301-244, • The pocks to be constructed may be too exaggerated for the slopes less than 2h:1v. Pocks on the order of 18 in X 24 in are recommended in the Division's 2000 Reclamation Manual. • The performance standard indicates that the topsoil will be maintained and redistributed according to plan. The plan should establish which water quality parameter will be monitored, turbidity? Specific conductivity? Total Settleable Solids (TSS)?

MAPS, PLANS, AND CROSS SECTIONS OF RECLAMATION OPERATIONS

Regulatory Reference: 30 CFR Sec. 784.23; R645-301-323, -301-512, -301-521, -301-542, -301-632, -301-731.

Analysis:

Bonded Area Map

PacifiCorp did not show the location of all disturbed area boundaries on the reclamation maps. Map 700-4 does not show the location of the subsoil storage area.

Reclamation Backfilling And Grading Maps

PacifiCorp did not meet the minimum requirements for backfilling and grading maps. PacifiCorp did not include adequate reclamation maps and cross sections. The cross sections on Map 500-3 do not cover the entire disturbed area. Those cross sections only include a part of the main facilities area and do not cover critical areas such as the sediment pond.

Map 700-4 shows the proposed reclamation surface for the map facilities area. That map is adequate to show the final reclaimed surfaces in the main facilities area.

PacifiCorp did not include reclamation maps and cross sections for the subsoil storage site. The Division needs detailed maps and cross sections of that area to determine if the reclamation plan is adequate

Reclamation Facilities Maps

PacifiCorp did not address the minimum requirements for reclamation facilities maps. The Division addresses those issues in the Road Systems and Other Transportation Facilities section of the TA. The deficiencies involve lack of information about specifications for reconstructed County Road.

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Final Surface Configuration Maps

PacifiCorp did not address the minimum requirements for final surface configuration maps. PacifiCorp did not provide topographic maps (final surface configuration maps) for the subsoil storage area.

Map 700-4, shows the reclamation surface for the main facilities area. The map is at a scale of 1 in equals 100 ft. The topographic lines are on 5-ft intervals. The information on the map is adequate for the Division to use when they evaluate the reclamation plan for the main facilities area.

Reclamation Monitoring And Sampling Location Maps

HM-1, the Water Monitoring Location Map, is in Volume 9 - Hydrologic Section. There is no new monitoring for the Rilda Canyon facilities.

Certification Requirements.

PacifiCorp had all appropriate maps certified by a professional engineer.

Findings:

R645-301-542, PacifiCorp must submit adequate reclamation maps and cross sections in the MRP. PacifiCorp must provide adequate reclamation maps and cross sections for the subsoil storage area and cross sections for the entire main facilities area. At a minimum PacifiCorp must provide: • a reclamation map(s) that show the disturbed area boundaries for all areas associated North Rilda Portals Facilities including the subsoil storage area, • cross sections for the entire main facilities area and • maps and cross sections for the subsoil storage area.

R645-301-121.200, PacifiCorp must reference the location of all backfilling and grading maps and cross sections in the engineering section of the MRP. For example the reclamation map for the main facilities area, Map 700-4, is not reference in the engineering section of the MRP.

BONDING AND INSURANCE REQUIREMENTS

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

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Analysis:

Determination of Bond Amount

The Division cannot evaluate the bond calculations because the reclamation plan is incomplete. The deficiencies about the reclamation plan are found in other sections of the TA.

Terms and Conditions for Liability Insurance

Findings:

The information provided in the MRP is not considered adequate to meet the minimum requirements of the bonding and insurance portions of the R645 Rules. Before approval, the Permittee must provide the following in accordance with:

R645-301-830.120, PacifiCorp must include the detailed reclamation plans upon which the bond calculations are based on in the MRP.

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SPECIAL CAGETORIES

REQUIREMENTS FOR PERMITS FOR SPECIAL CATEGORIES OF MINING

OPERATIONS IN ALLUVIAL VALLEY FLOORS

Regulatory Reference: 30 CFR Sec. 822; R645-302-324.

Findings:

No determination has been made at this time. The Division is waiting for the April 2004 Geotechnical report and other missing information from the plan.

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