

TECHNICAL MEMORANDUM

Utah Coal Regulatory Program

OK

October 12, 2004

TO: Internal File

THRU: James Smith, Team Lead *JS*

FROM: Wayne H. Western, Environmental Scientist III, Engineering and Bonding *W/H/W*

RE: Volume 11: North Rilda Area, PacifiCorp, Deer Creek Mine, Permit C/015/0018, Task ID # 2032

SUMMARY:

On September 2, 2004, the Division received an application from PacifiCorp to develop additional surface facilities in Rilda Canyon for miners and materials access. The proposed North Rilda Portal Facilities will consist of two separate areas. The main facilities will consist of 9 acres, with an additional 3.1 acres for soil and subsoil storage down the canyon, bringing the total disturbed additional disturbed area to 12.1 acres.

Underground access from the North Rilda Portal Facilities will be through two rock slopes. There will be two portals, one for a mine fan and another for intake access. The slopes will connect with to extensions of the 1st Right Submains in the Hiawatha Seam. Excavated material from the slopes, mainly sandstone, will be stored within the mine.

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.

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TECHNICAL ANALYSIS:

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 UCMR.

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.

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 UCMR.

MAPS, PLANS, AND CROSS SECTIONS OF RESOURCE INFORMATION

Regulatory Reference: 30 CFR 783.24, 783.25; R645-301-323, -301-411, -301-521, -301-622, -301-722, -301-731.

Analysis:

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 UCMR require that the existing surface and subsurface facilities and features maps must show:

- The location of all buildings in and within 1,000 feet of the proposed permit area. There are no building 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 are 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.

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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 inch equals 300 feet while the operations map (500-2, Deer Creek Mine Rilda Canyon Surface Facilities) is at a scale of 1 inch equals 100 feet. The Division needs the existing surface (topographic) map to be at a scale of 1 inch equals 100 feet 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 inch equals 200 feet. As mention above the Division needs premining maps at a scale of 1 inch equals 100 feet.

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 PAP.

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.

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.

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:

R645-301-521.120, The Permittee must provide the Division with maps that show the identify and show the 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 inch equals 100 feet or greater. In addition the cross sections must cover the entire disturbed area on intervals of not less than one every 50 feet.

OPERATION PLAN

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 UCMR.

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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 PAP. PacifiCorp will construct the power lines in accordance with the raptor protection requirements.

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 UCMR.

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 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.

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- 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 North Emery Water Users Special Services District, 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

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Analysis:

For all surface operations associated with mining activities, the application shall contain an air pollution control plan which includes the following: an air quality monitoring program, if required by the Division, to provide sufficient data to evaluate the effectiveness of the fugitive dust control practices to comply with applicable Federal and State air quality standards; and a plan for fugitive dust control practices such that all exposed surface areas shall be protected and stabilized to effectively control erosion and air pollution attendant to erosion.

Findings:

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 UCMR.

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.

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 UCMR.

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 Noncoal Mine Wastes

PacifiCorp adequately addressed this section of the regulations. 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.

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 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 PAP 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.

The UCMR 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.

Approximately 3,600 tons of coal mine waste were buried on site when AML reclaimed the Leroy Mine. The Permittee will disturb the area during construction. They will either dispose of the material at the Deer Creek waste rock site or ship the material to the Huntington Power Plate where the material will be used for fuel.

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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 ship coal from the mine to an end use facility.

Excess Spoil:

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

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:

R645-301-528.320, 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, -300-147, -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:

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" 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 area 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.

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" 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.

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 PAP.

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 UCMR.

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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 explosive section of the UCMR. In Section R645-301-524.200 of the PAP, 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:

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 inch equals 100 feet. The Division needs those maps in order to evaluate the operation plan.

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.

Certification Requirements

PacifiCorp had all the maps certified that needed certification.

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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 inch equals 100 feet and cross sections on 50 foot 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.

RECLAMATION PLAN

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 UCMR. 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:

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- 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 as shown on Map 500-3 cross sections 2+50 and 5+00. The cross sections show that the highwalls will be eliminated. The 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.

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Analysis:

General

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.

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

The Division does not consider any areas within the North Rilda Portal Facilities to be part of a previously mined area. The reason for that is the UCMR allow for exemptions from the standard reclamation requirements for areas with existing highwalls and spoil piles. Since there are no existing highwalls or spoil piles in the proposed disturbed area the special regulations do not apply.

The Division acknowledges that mining occurred in and around the area and that the mines were abandoned and later reclaimed by AML. The reclamation standards for AML site can be less than for permitted sites. The UCMR are not clear about how to handle reclaimed sites. In general the Division requires that the permittee restore the site to the reclaimed condition.

PacifiCorp will encounter buried coal mine waste during construction. The Division acknowledges the presence of buried coal mine waste and takes that into consideration when they evaluate 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.

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.

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:

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 PAP meets the minimum requirements of the Mine Openings requirements of the UCMR.

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, 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 PAP, PacifiCorp states that the County Road will be returned to designs specified by Emery County.

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.

TECHNICAL MEMO

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.

Final Surface Configuration Maps

PacifiCorp did not address the minimum requirements for final surface configurations 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-inch equals 100 feet. The topographic lines are on 5-foot internals. The information on the map is adequate for the Division to use when they evaluate the reclamation plan for the main facilities area.

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 PAP. 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 PAP. For example the reclamation map for the main facilities area, Map 700-4, is not reference in the engineering section of the PAP.

BONDING AND INSURANCE REQUIREMENTS

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

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 PAP is not considered adequate to meet the minimum requirements of the bonding and insurance portions of the UCMR. 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 PAP.

RECOMMENDATIONS:

The Division should not approve the PAP until all the above-mentioned deficiencies have been addressed.