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TECHNICAL MEMORANDUM
Utah Coal Regulatory Program

#3405
ok

September 30th, 2009

TO: Internal File

THRU: James D. Smith, Permit Supervisor JDS 07/10/09

FROM: Steve Christensen, Environmental Scientist SKC

RE: Add Zero Zero North LBA, Consolidation Coal Company, Emery Deep, C/015/0015, Task ID #3405

SUMMARY:

On September 17th, 2009, the Division of Oil, Gas and Mining (the Division) received an application from Consolidation Coal Company (the Permittee) to revise the approved mining and reclamation plan (MRP) for the Emery Deep Mine.

Prior to the submission of this application, the addition of the Zero Zero North Panel was reviewed and approved by the Division on July 6th, 2009 (Task ID #3339). The current application calls for the expansion of the Zero Zero North Panel. The Permittee proposes to add 120 more acres of mining area to the already approved portion of the Zero Zero North Panel. The coal is contained in federal lease UTU-86038. On September 3rd, 2009, the Permittee was the successful bidder on this tract of coal. The Permittee will utilize a pillar splitting plan that is considered a planned subsidence-mining plan.

The following memo examines the application relative to the hydrologic regulations of the State of Utah R-645 Coal Mining Rules.

Finding:

The hydrologic information does not meet the hydrology requirements as provided for in the State of Utah R645-Coal Mining Rules and should be approved at this time. The following deficiencies must be addressed prior to Division approval:

R645-301-120- The Permittee must provide clarification language that makes it clear to the reader that the submitted information pertains directly to the Federal lease expansion of the Zero Zero North Panel. The clarification should be inserted in the following locations:

- In section VI.2.4-Baseline Information on the top of Page VI-3 of the approved MRP.

- Top of 1st page of Appendix VI-16, Selected Text from Miller Canyon Tract EA.

R645-301-120- The Permittee should provide additional figures within Appendix VI-16, *Selected Text from Miller Canyon Tract EA*. The baseline information contained within Appendix VI-16 cites Figures 3 and 4 from the Environmental Assessment. For clarification, Figures 3 and 4 should be included with the information submitted in Appendix VI-16.

R645-301-728- The Permittee must include further discussion as to the potential for probable hydrologic consequences (PHC) within section VI.2.8.3 of the MRP. The environmental assessment (EA) conducted by the Federal land regulatory agency identified hydrologic resources and riparian vegetation/habitat corridors that could be potentially impacted by subsidence within the ZZ North Panel expansion. These resources should be specifically addressed within the PHC section that begins on page VI-16 of the MRP.

TECHNICAL ANALYSIS:

GENERAL CONTENTS

PERMIT APPLICATION FORMAT AND CONTENTS

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

Analysis:

The application does not meet the Permit Application Format and Contents requirements of the State of Utah R645-Coal Mining Rules.

The Permittee must provide clarification language that makes it clear to the reader that the submitted information pertains directly to the Federal lease expansion of the Zero Zero North Panel. The clarification should be inserted in the following locations:

- In section VI.2.4-Baseline Information on the top of Page VI-3 of the approved MRP.
- Top of 1st page of Appendix VI-16, Selected Text from Miller Canyon Tract EA.

The Permittee should provide additional figures within Appendix VI-16, *Selected Text from Miller Canyon Tract EA*. The baseline information contained within Appendix VI-16 cites Figures 3 and 4 from the Environmental Assessment. For clarification, Figures 3 and 4 should be added to the information within Appendix VI-16.

Findings

The application does not meet the Permit Application Format and Contents requirements of the State of Utah R645-Coal Mining Rules. The following deficiencies must be addressed prior to Division approval:

R645-301-120- The Permittee must provide clarification language that makes it clear to the reader that the submitted information pertains directly to the Federal lease expansion of the Zero Zero North Panel. The clarification should be inserted in the following locations:

- In section VI.2.4-Baseline Information on the top of Page VI-3 of the approved MRP.
- Top of 1st page of Appendix VI-16, Selected Text from Miller Canyon Tract EA.

R645-301-120- The Permittee should provide additional figures within Appendix VI-16, *Selected Text from Miller Canyon Tract EA*. The baseline information contained within Appendix VI-16 cites Figures 3 and 4 from the Environmental Assessment. For clarification, Figures 3 and 4 should be included with the information submitted in Appendix VI-16.

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:

The application meets the requirements for General Environmental Resource Information requirements as provided for in R645-301-721.

Beginning on page VI-1 of the approved MRP, the Permittee provides descriptions and discussion as to the location and extent of ground and surface water. Plates VI-1 through VI-3 depict the ground water resources within the permit and adjacent areas including the proposed addition to the Zero North Panel. Plate VI-4 depicts water supply wells, ground water monitoring wells as well as the surface and ground water monitoring sites.

Water right information is provided in Appendix VI-4 and Table VI-1. Seasonal variations in groundwater levels are discussed in Section VI.2.4.1. The depths of the wells (as well as other completion details of the wells) are provided in Table VI-2.

The general hydrologic information contained in chapter VI encompasses the proposed expansion of the Zero Zero North panel.

Findings:

The application meets the General Environmental Resource Information requirements as provided for in R645-301-721.

ALLUVIAL VALLEY FLOORS

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

Analysis:

Alluvial Valley Floor Determination

The application meets the Alluvial Valley Floor Determination requirements as provided for in R645-302-320. Chapter XI, *Alluvial Valley Floors*, of the approved MRP contains information regarding alluvial valley floors (AVF's) within and adjacent to the permit area. Plate V-5, "Subsidence Monitoring Points and Buffer Zones" depicts the locations of the alluvial valley buffer zones established by the Permittee. The proposed expansion to the Zero Zero North Panel is not located within an identified AVF.

Findings:

The application meets the Alluvial Valley Floor Determination requirements as provided for in R645-302-320.

HYDROLOGIC RESOURCE INFORMATION

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

Analysis:

Baseline Information

The application meets the requirements for Baseline Information as required by R645-301-724. Beginning on page VI-3 of the approved MRP, the Permittee provides baseline information for the ground and surface water resources located in within and adjacent to the proposed Zero Zero North Panel.

In addition, the Permittee submitted additional baseline information in Appendix VI-16. As the expansion of the Zero Zero North Panel is a Federal leasing action, an Environmental Assessment (EA) was conducted. The Permittee has provided relevant baseline information from the EA in Appendix VI-16, *Selected Text from Miller Canyon Tract EA*.

The lease expansion area of the Zero Zero North Panel is bisected by Miller Canyon. Based upon site inspections by Division personnel, it's been determined that the reach of Miller Canyon that flows through the expansion area conveys irrigation return flow, runoff from snowmelt and precipitation events and discharge from a small spring (i.e. ephemeral in nature).

The volume of irrigation return flow within the Miller Canyon drainage is of sufficient volume and duration to support a small riparian corridor. On the 1st page of the baseline information in Appendix VI-16, the Permittee provides data obtained from the United States Geological Survey to establish water quality ranges for area drainages. The data clearly shows that the water quality degrades rapidly from the Emery Canal diversion upstream of the lease expansion (below 300 mg/L TDS) to Muddy Creek just below Miller Creek (as high as 3,715 mg/L).

The Permittee establishes that the primary source of flow to the Miller Canyon drainage is from irrigation return flow. During the environmental assessment, the Bureau of Land Management (BLM) conducted numerous site visits. The information contained in Appendix VI-16 discuss how during a BLM site visit on April 24th, 2008 (prior to the start of seasonal irrigation practices), there was an absence of stream flow in Miller Canyon. The only flow documented at that time was from Christiansen Spring (SP-15 in the DOGM Water Quality Database) at a rate of less than 1 gallon per minute. Upon a return site visit, BLM representatives observed flows (following the instigation of seasonal irrigation practices) in excess of 100 gallons per minute.

Probable Hydrologic Consequences Determination

The application meets the requirements for Probable Hydrological Consequences (PHC) as required in R645-301-728. Beginning on page VI-16 of the application, the Permittee discusses the potential impacts from coal mining activities on the quality and quantity of surface and groundwater flow within and adjacent to the permit. The Permittee further provides detailed discussion as to how the potential impacts will be minimal and if necessary, can be mitigated. The approved PHC discussion includes the proposed expansion area of the Zero Zero North Panel. The following potential impacts have been evaluated:

- Contamination from acid- or toxic-forming materials;
- Impacts to groundwater availability;
- Impacts to surface water availability;
- Increased total dissolved solids concentrations in surface and groundwater;
- Flooding or streamflow alteration;
- Potential hydrocarbon contamination

- Coal spillage during hauling.

Recent ground water modeling (utilizing monitoring well data obtained from the mine site and surrounding vicinity) performed at the Emery Deep Mine provided the basis for determining the lateral extent of potential ground water impacts associated with mining activity at the site.

Findings:

The application does not meet the Hydrologic Resource requirements of the State of Utah R645-Coal Mining Rules. The following deficiencies must be addressed prior to Division approval:

R645-301-728- The Permittee must include further discussion as to the potential for probable hydrologic consequences (PHC) within section VI.2.8.3 of the MRP. The environmental assessment (EA) conducted by the Federal land regulatory agency identified hydrologic resources and riparian vegetation/habitat corridors that could be potentially impacted by subsidence within the ZZ North Panel expansion. These resources should be specifically addressed within the PHC section that begins on page VI-16 of the MRP.

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:

The application meets the Maps, Plans and Cross Sections of Resource Information as required by the State of Utah R645-Coal Mining Rules.

With the additional lease area being added to the Zero Zero North Panel, the Permittee has revised all relevant plates/maps to depict the revised adjacent area. Hydrologic Plates VI-1, Plate VI-2, Plate VI-4, Plate VI-5, Plate VI-6, Plate VI-7, Plate VI-8, Plate VI-9 and Plate VI-10 have all been revised to depict the additional mining area of the Zero Zero North Panel.

Monitoring and Sampling Location Maps

The MRP meets the requirements for Monitoring and Sampling Location Maps as required by R645-301-731. Plate VI-4, *Ground Water Monitoring Well and Surface Water Monitoring Site Locations*, depicts the locations of all surface and groundwater monitoring

points both within and adjacent to the permit area. The additional mining area of the Zero Zero North Panel has been added to the adjacent area depicted on Plate VI-4.

Subsurface Water Resource Maps

The MRP meets the requirements for Subsurface Water Resource Maps as required by R645-301-731. Plate VI-1 depicts the potentiometric surface of the Upper Ferron Sandstone aquifer as of 1979. Plate VI-2 depicts the potentiometric surface of the Lower Ferron Sandstone aquifer as of 1985. Plates VI-7 and VI-8 depict the potentiometric surface of the Upper and Lower Ferron Sandstone respectively for 2006. Plate VI-3 depicts the water rights located within and adjacent to the permit area (including the Zero Zero North Panel).

All of the aforementioned plates have been revised to depict the additional mining area of the Zero Zero North panel.

Surface and Subsurface Manmade Features Maps

The MRP meets the requirements for Surface and Subsurface Manmade Features Maps as required by R645-301-731. Plate VI-4 depicts all surface and subsurface manmade features located within the permit and adjacent area (including the proposed mining area expansion of the Zero Zero North Panel).

Surface Water Resource Maps

The MRP meets the requirements for Surface Water Resource Maps as required by R645-301-731. Plate VI-4 depicts all surface water located within and adjacent to the permit area (including the proposed expansion of the Zero Zero North Panel).

Well Maps

The MRP meets the requirements for Well Maps as required by R645-301-731. Plate VI-4 depicts all groundwater wells (including monitoring wells) located within and adjacent to the permit area (including the proposed expansion of the Zero Zero North Panel).

Findings:

The application meets the Maps, Plans and Cross Sections of Resource Information requirements of the State of Utah R645-Coal Mining Rules.

OPERATION PLAN

SUBSIDENCE CONTROL PLAN

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

Analysis:

Renewable Resources Survey

The application meets the requirements for Renewable Resources Survey as required in R645-301-724.

A pre-subsidence survey is located in Appendix V-5 with an associated Figure 1 that depicts the area surveyed.

Subsidence Control Plan

The approved MRP meets the Operational Plan requirements for Subsidence Control Plan as provided in R645-301-525.120, -525.480

Section V.B of the MRP discusses subsidence monitoring. Page 36 of the MRP outlines the steps and elements of the proposed subsidence-monitoring plan. The plan calls for the establishment of a series of reference points to be established outside the theoretical angle of draw. Item 1A on page 36 calls for a mine representative to inspect monthly the areas designated as "full extraction" on Plate V-5. The monthly inspections will continue until the survey monitoring points below indicate that there is no subsidence occurring. A record of the monthly inspections will be produced and forwarded to the Division. A copy of the inspection will also be kept at the mine office.

In addition, the Permittee has committed to establish pre-mining elevations and gradients of any irrigation ditches and pond embankments within the angle of draw (See Item 11 in chapter V page 37). The Permittee will also monitor these areas by visual inspection and post-subsidence ground survey to establish the effects of subsidence. The Permittee has committed to providing the Division with a quarterly subsidence mitigation report that describes the surface mitigation projects and their status broke down by surface landowner.

Subsidence mitigation efforts are further discussed on pages 39-42 of Chapter V of the approved MRP. Pages 41 and 42 of the approved MRP generally discuss timetables and how the Permittee will work with landowners and the Division regarding mitigation efforts. On page 39 of Chapter V of the approved MRP, the Permittee discusses the mitigation process relative to subsidence damage to structures and State appropriated water supplies. The Permittee commits to "restore, rehabilitate or remove and replace, to the extent technologically and economically feasible, each materially damaged structure, feature or value".

Page 41 in Chapter V of the MRP discusses subsidence mitigation. The Permittee states, "If subsidence occurs which prevents flow through a ditch that is used each summer, then it will be necessary to repair the ditch as soon as practical even though future subsidence may necessitate further work".

In addition, the mine has been designed to preclude subsidence in areas occupied by perennial streams. The Permittee has produced a plan to prevent subsidence from affecting Quitchupah Creek, Christiansen Wash and the alluvial valley floor area on the west side of the permit area by establishing buffer zones in these areas. Plate V-5, *Subsidence Monitoring Points and Buffer Zones*, depicts a stream buffer zone extending the full length of Christiansen Wash in the areas where full extraction mining will take place. Additionally, a buffer zone has been established in the alluvial valley floor area around Quitchupah Creek. The overburden depth and the angle of draw were used to determine the buffer zone dimensions. The buffer zone for Quitchupah Creek and Christiansen Wash includes an additional standoff distance of 100 ft. on either side.

The Permittee provides further clarification on subsidence mitigation on page 39 of the MRP. The Permittee commits to "mitigate the damage in accordance with R645-301-525.500" and that "the mitigation process will be performed in accordance with R645-301-731.530, R645-301-525.520 and R645-301-525.530". R645-301-731.530 calls for the prompt replacement of any state appropriated water supply that is contaminated, diminished or interrupted by underground coal mining and reclamation activities. R645-301-525.520 and R645-301-525.530 deal with the mitigation of any structures that are impacted by mining activity

The Permittee provides a commitment to "repair or replace any adversely affected State appropriated water supplies that are contaminated, diminished or interrupted" as required by R645-301-731.530 on page 41 of Chapter V of the MRP.

Per R645-301-731.530, the Permittee is required to promptly replace any State-appropriated water supply that is contaminated, diminished or interrupted by underground coal mining and reclamation activities. On page V-42 of the application, the Permittee outlines water replacement measures to be initiated in the event that mining activity was to impact the Emery Town Wells. If the town of Emery surface water system (Muddy Creek) becomes inoperable and the backup wells (Wells #1 and #2) have been impacted by mining activity, the Permittee

provides a commitment to "hauling water to the Emery treatment facility until the towns surface system becomes operable, an alternative source is secured or the aquifer recharges".

Findings:

The application meets the hydrologic requirements for Renewable Resources Survey as required by the R645-Coal Mining 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:

Refuse Piles

The application meets the Refuse Pile requirements of the State of Utah R645-Coal Mining Rules.

The approved MRP contains the design data, maps and hydrologic model runs used to design the drainage system at the existing refuse pile site. R645-301-746.212, as stated above, requires that runoff from a refuse pile must be diverted into stabilized diversion channels that are designed to safely pass the runoff from a 100-year, 6-hour event. Upon review of the submitted model, as well as the surface drainage map, the drainage network at the current refuse pile location meets this requirement.

A permanent refuse disposal site has been designed. The site has been designed to safely pass the 100-year, 6-hour event. Storm water runoff generated from the site will be diverted in to Pond No. 8. The Permittee has demonstrated that Pond No. 8 has adequate storage capacity to safely contain the storm water runoff generated from the permanent refuse disposal site.

Findings:

The submittal meets the Refuse Pile requirements of R645-301-746.212.

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:

General

The application meets the Operational Plan requirements for General Hydrologic information as provided in R645-301-731.

Chapter VI of the approved MRP discusses the hydrologic located within the Zero Zero North mining expansion area; including ground and surface water information, water uses, water rights as well as the probable hydrologic consequences of full extraction mining within that area.

The MRP outlines the measures to be taken during the operational mining phase to minimize disturbance of the hydrologic balance within and adjacent to the permit area as well as prevent material damage to the hydrologic balance.

Groundwater Monitoring

The approved MRP meets the Operational Plan requirements for Groundwater monitoring as provided in R645-301-731.210. The Permittee does not propose any additional ground water monitoring as a result of full extraction mining within the Zero Zero North panel. Christiansen Wash (SP-15) is located directly within the Miller Canyon drainage. SP-15 is already part of the operational groundwater-monitoring program for the Emery Deep Mine. No additional groundwater monitoring sites have been proposed, nor are they required with the proposed mining area expansion of the Zero Zero North Panel.

The Permittee provides comprehensive water monitoring information as to the specific ground and surface water sites and their respective monitoring protocols in Table VI-17, *Emery Mine Hydrologic Monitoring Program.*

Surface Water Monitoring

The MRP meets the Operational Plan requirements for Surface Water Monitoring as provided in R645-301-731.220. Additional surface water monitoring within the Zero Zero North panel is not necessary. As discussed in the baseline information section above, the Miller Canyon drainage is ephemeral and flows only in direct response to snowmelt/precipitation events and irrigation return flow. As a result, additional surface water monitoring points are not required with the expanded mining area of the Zero Zero North Panel.

Plate VI-4 of the application depicts the surface water monitoring points within the permit area as well as adjacent to it. Table VI-17, *Emery Mine Hydrologic Monitoring Program* provides the sampling protocols for all ground and surface water sites within the permit and adjacent area.

Water-Quality Standards And Effluent Limitations

The MRP meets the requirements for Water-Quality Standards and Effluent Limitations as outlined in R645-301-751. The Permittee operates under a UPDES discharge permit (#UT0022616) issued by the Utah Division of Water Quality (DWQ) and controls discharges from the mine to be consistent with that permit. The Emery Mine UPDES permit currently allows a maximum salt load of 12 tons/day to be discharged from the mine. If this load were discharged constantly throughout the year, the annual salt load from the mine to the Muddy Creek watershed would be 4,380 tons/year. Upon discussions with DWQ personnel, it's anticipated that the salt-load limit will change to approximately 3,839 tons/year. The addition of the Zero Zero North panel does not require additional UPDES effluent/discharge monitoring.

Diversions:

The application meets the requirements for Diversions as required in R645-301-732.300, 742.100, 742.200, 742.300, 742.320 and 742.330. No diversions are proposed/required with the expanded mining area of the Zero Zero North Panel.

Stream Buffer Zones

The application meets the Stream Buffer Zone requirements as provided in R645-301-731.600. Page VI-27 discusses stream buffer zones. Plate V-5, Subsidence Monitoring Points and Buffer Zones, depicts the location of stream buffer zones established on both Christiansen Wash and Quitchupah Creek. All perennial and intermittent streams in the permit area are protected by 100-foot stream buffer zones on either side of these streams. No perennial or intermittent streams are located within 100-feet of the proposed Zero Zero North Panel.

Sediment Control Measures

The application meets the Sediment Control Measure requirements as provided in R645-301-732. As no surface disturbance is proposed with the additional mining area of the Zero Zero North Panel, no additional sediment control measures are required.

Siltation Structures: Sedimentation Ponds

The application meets the Siltation Structures: Sediment Ponds requirements as provided in R645-301-732.200 and –742.220. As no surface disturbance is proposed with the additional mining area of the Zero Zero North Panel, additional siltation structures (i.e. sedimentation ponds) are not required.

Discharge Structures

The application meets the Discharge Structures requirements as provided in R645-301-734, -744. As no surface disturbance is proposed with the additional mining area of the Zero Zero North Panel, no discharge structures are necessary.

Ponds, Impoundments, Banks, Dams, and Embankments

The application meets the requirements for Ponds, Impoundments, Banks, Dams and Embankments as required by R645-301-536.800 and-744.100. As no surface disturbance is proposed with the additional mining area of the Zero Zero North Panel, no additional ponds, impoundments, banks, damns or embankments are required.

Findings:

The application meets the requirements for Hydrologic Information as required by the R645-Coal Mining Rules.

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.

Findings:

The application meets the Maps, Plans and Cross Sections of Mining Operations requirement as provided in the State of Utah R645-Coal Mining Rules.

Plate IV-2, *UG Operations Plan* and Plate VI-6, *Historic and Planned Mining Sequence* has been revised to depict the additional mining area of the Zero Zero North Panel.

RECLAMATION PLAN

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:

The application meets the General Requirements for Reclamation as provided in R645-301-760. No surface disturbance is proposed with the additional mining area of the Zero Zero North Panel,. As a result, reclamation requirements are not applicable to this application.

Findings:

The application meets the Reclamation requirements as provided in the R645-State of Utah Coal Mining Rules.

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

The application meets the Road Systems and Other Transportation Facilities requirements as provided in R645-301-732.

Additional roads are not proposed with the addition mining area of the Zero Zero North Panel.

Findings:

The application meets the Road Systems and Other Transportation Facilities requirements as provided in R645-301-732.

CUMULATIVE HYDROLOGIC IMPACT ASSESSMENT

Regulatory Reference: 30 CFR Sec. 784.14; R645-301-730.

Analysis:

The application meets the Cumulative Hydrologic Impact Assessment requirements as provided in R645-301-730. The Permittee has provided sufficient information in order for the Division to prepare an updated Cumulative Hydrologic Impact Assessment (CHIA). The Zero Zero North Panel lies within the existing CHIA area.

RECOMMENDATIONS:

The application should not be approved at this time.