



Technical Analysis and Findings

Utah Coal Regulatory Program

July 15, 2016

PID: C0150025
TaskID: 5209
Mine Name: BEAR CANYON MINE
Title: ACCESS ROAD

Operation Plan

Road Systems Classification

Analysis:

The amendment meets the State of Utah R645 requirements for Road Systems and Other Transportation Facilities.

The amendment meets the requirements of R645-301-527.100 by detailing the use and purpose of the road in Chapter 2 Page 2-28. The #2 Belt road is an ancillary road off the Lower Conveyor road, which is detailed in Chapter 5. The #2 Belt access road was constructed and is used, and maintained within the permit area. The amendment is missing a Chapter 5 narrative similar to the text provided to update Chapter 2 of the MRP but the narrative within Chapter 2 page 2-28 meets the R645-301-527.100 requirements.

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Road System Plans and Drawings

Analysis:

The amendment meets the State of Utah R645 requirements for Road Drainage.

The amendment provides a map and a narrative of how runoff from watershed AD-16 will be captured and routed by the road to Catch Basin 1.

kstorrar

Road System Plans and Drawings

Analysis:

The amendment meets the State of Utah R645 requirements for Transportation Plans and Drawings.

The amendment meets the requirements of R645-301-534.100 by submit specifications for each road width, road gradient, road surface, road cut, fill embankment plans and drawings for each road to be maintained within the permit area. The Permittee provided a drawing showing the design of the #2 Belt Access Road or a narrative detailing how the road will be constructed and maintained similar to the Lower Conveyor Access Road on Plate 5-2F. As detailed in Chapter 2 page 2-28 1669 CY of soil was salvage for the construction of the lower conveyor road, of said salvage soil approximately 150 CY from the toe will be relocated to the top of the pile for the construction of the #2 Belt Road. The cut/fill volumes were updated within appendix 5J-2 to show the additional grading required.

Road System Performance Standards

Analysis:

The amendment meets the State of Utah R645 requirements for Performance Standards of roads within the permit area.

The amendment meets the requirements of R645-301-534.150 by submitting general maintenance plans and drawing for each road to be maintained within the permit area to prevent and control erosion within Chapter 5. The #2 Belt Access road is connected with the Lower Conveyor Access Road and will be maintained in a similar fashion.

cparker

Road System Other Transportation Facilities

Analysis:

The amendment meets the State of Utah R645 requirements for Other Transportation Facilities.

The amendment meets the requirements of R645-301-521.170 by submitting plans and drawing for each road, conveyor, and rail system to be used within the proposed permit area. This amendment is associated with the need for an access road for maintenance of the #2 belt conveyor.

cparker

Hydrologic Diversion General

Analysis:

The amendment meets the State of Utah R645 requirements for Diversions.

Appendix 7G and 7K in Chapter 7 of the approved MRP provides a narrative and calculations for drainage control within the Access Road area. Watershed AD-16 drains from the Topsoil Stockpile down to D-15D and into Catch Basin 1. Runoff and peak flow from watershed AD-16 is calculated using a Hydrograph Generation Program. The peak flow value is then used to calculate velocity along D-15D and through the Spillway into Catch Basin 1. The runoff volume is used to properly size Catch Basin 1. It is assumed these calculations will not change and the borrow ditch of the Access Road will function as D-15D for capturing and routing runoff from AD-16 to Catch Basin 1.

kstorrar

Hydrologic Sediment Control Measures

Analysis:

The amendment meets the State of Utah R645 requirements for Sediment Control Measures.

The approved MRP provides calculations of Catch Basin 1 Spillway and the D50 = 6 inch riprap that must be installed to stabilize the spillway.

kstorrar

Maps Facilities

Analysis:

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

The amendment meets the requirements of R645-301-521.120 through-521.125 which require maps to clearly show existing surface and subsurface facilities. The amended included updates to mine facilities Plate 5-2F. The #2 Belt is connected to the Lower Conveyor Access Road and will be utilized as an maintenance access road for the conveyor belt. As detailed in Chapter 2 page 2-28 1669 CY of soil was salvage for the construction of the lower conveyor road, of said salvage soil approximately 150 CY from the toe will be relocated to the top of the pile for the construction of the #2 Belt Road. The cut/fill volumes were updated within appendix 5J-2 to show the additional grading required.

Reclamation Plan

General Requirements

Analysis:

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

The requirements of R645-301-540 are met within the amendment as there is no change to the existing MRP reclamation details. The new #2 Belt Access road falls within previously disturbed boundary, shown on Plate 5-2F, and is already accounted for final grade reclamation shown on Plate 5-2F. The amendment meets R645-301-553 regulations as the amendment details grading volume for the reclamation of the #2 Belt access road in Appendix 5-J. As detailed in Chapter 2 page 2-28 1669 CY of soil was salvage for the construction of the lower conveyor road, of said salvage soil approximately 150 CY from the toe will be relocated to the top of the pile for the construction of the #2 Belt Road. The cut/fill volumes were updated within appendix 5J-2 to show the additional grading required.

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Backfill and Grading General

Analysis:

The amendment meets the State of Utah R645 requirements for Backfill and Grading.

The amendment meets the general requirements of R645-301-553 by updating Table 5J-2 Lower Conveyor Access Road Cut and Fill volumes in Chapter 5. R645 regulations require a detailed general backfill and grading plan that describes how disturbed areas will be backfilled and graded to achieve the approximate original contour, eliminate all highwalls, spoil piles, and depressions, and achieve a postmining slope that does not exceed either the angle of repose or such lesser slope as is necessary to achieve a minimum long term static safety factor of 1.3 and to prevent slides, minimize erosion and water pollution both on and off the site, and support the approved postmining land use. The amendment updated relevant backfill and grading volume tables and narrative within Chapter 5, Construction Description (page 5J-3). The #2 Belt access road is of a relatively short length, within disturbed area, and joined with the Lower Conveyor access road no addition slope stability will be required. Plate 2-2B shows the typical cross sections of soil to be removed and Plate 5-2F of the surface facilities was updated to reflect the addition. As detailed in Chapter 2 page 2-28 1669 CY of soil was salvage for the construction of the lower conveyor road, of said salvage soil approximately 150 CY from the toe will be relocated to the top of the pile for the construction of the #2 Belt Road. The cut/fill volumes were updated within appendix 5J-2 to show the additional grading required.

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Road System Reclamation

Analysis:

The amendment meets the State of Utah R645 requirements for Reclamation of Roads.

The requirements of R645-301-534 are met within the amendment as there is an update to the existing MRP reclamation of roads throughout the permitted area in terms of regrading volume associated with the additional #2 Belt access road to return the site to the grade shown on Plate 5-2F. As detailed in Chapter 2 page 2-28 1669 CY of soil was salvage for the construction of the lower conveyor road, of said salvage soil approximately 150 CY from the toe will be relocated to the top of the pile for the construction of the #2 Belt Road. The cut/fill volumes were updated within appendix 5J-2 to show the additional grading required.

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Maps Reclamation BackFilling and Grading

Analysis:

The amendment meets the State of Utah R645 requirements for Reclamation Backfilling and Grading Maps.

The requirements of R645-301-542 are met within the amendment as there is no change required to the existing MRP plan of backfilling and grading areas or volumes, the final grading at reclamation of #2 Belt Access road is included in grading areas shown on Plate 5-6F. As detailed in Chapter 2 page 2-28 1669 CY of soil was salvage for the construction of the lower conveyor road, of said salvage soil approximately 150 CY from the toe will be relocated to the top of the pile for the construction of the #2 Belt Road. The cut/fill volumes were updated within appendix 5J-2 to show the additional grading required.

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Bonding and Insurance General

Analysis:

The amendment meets the State of Utah R645 requirements for Bonding and Insurance Requirements.

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

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Bonding Form of Bond

Analysis:

The amendment meets the State of Utah R645 requirements for Form of Bond.

The amendment meets the requirements of R645-301-860.100 as the applicant currently maintains a surety bond amount of \$2,210,000 which is held by Western Surety Company.

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Bonding Determination of Amount

Analysis:

The amendment meets the State of Utah R645 requirements for Determination of Bond Amount.

The amendment meets the requirements of R645-301-830.140 as the Permittee did not need to submit detailed updated bond information in regards to the amendment. The bond amount must reflect to total worst case scenario. As detailed in Chapter 2 page 2-28 1669 CY of soil was salvage for the construction of the lower conveyor road, of said salvage soil approximately 150 CY from the toe will be relocated to the top of the pile for the construction of the #2 Belt Road. The cut/fill volumes were updated within appendix 5J-2 to show the additional grading required.

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Bonding Terms and Conditions Liability Insurance

Analysis:

The amendment meets the State of Utah R645 requirements for Terms and Conditions for Liability Insurance.

The amendment meets the requirements of R645-301-850 as the applicant currently holds liability insurance through National Union Fire Ins Co, effective until 6/1/16. The insurance includes the required Marsh from, explosives and claims made per occurrence.

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