



Technical Analysis and Findings

Utah Coal Regulatory Program

October 28, 2015

PID: C0070005
TaskID: 4978
Mine Name: SKYLINE MINE
Title: WASTE ROCK SITE CULVERT

Operation Plan

Spoil Waste Refuse Piles

Analysis:

The application meets the minimum standards or R645-301-528.322 due the addition of a culvert to carry runoff from the undisturbed ditch, UD-6B to the adjacent natural drainage. The application included an updated culvert section in Chapter 3 Section 3.2 and Plate 3.2.8-1 and 3.2.8-1. Plate 3.2.8-1A was added to detail the culvert designs.

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Hydrologic Diversion General

Analysis:

The amendment meets the State of Utah R645 requirement for Hydrology: Diversions.

The Permittee submitted and amendment to revise how undisturbed drainage is handled at the Skyline Waste Rock Facility. The proposed changes will now routed undisturbed drainage from ditch UD-6B through a 24 inch culvert, under the access road and down into an adjacent natural drainage.

The Permittee has updated Section 3.2 of the MRP to discuss the new culvert, updated Plates 3.2.8-1 and 3.2.8-2 with the new culvert, and created Plate 3.2.8-1a to show design details of the culvert and related structures. Also, design calculations have been added to Appendix A-5, Volume 1, Section 14.

The culvert was designed using a 10 year, 6 hour storm in accordance with R645-301-742.323. The 1.36 inches of precipitation results in a peak discharge of 1.42 cfs, with a total runoff volume of 0.28 ac-ft. The culvert is 24 inches in diameter and 20 feet long.

Plate 3.2.8-1a shows a detail of the outlet riprap apron, and also show a detail of the concrete sediment boxes that will be located at the beginning and the toe of the 5% sloped section of culvert.

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Maps Facilities

Analysis:

The application meets the minimum requirements of R645-301-521.120 through-521.125 which require maps to clearly

show existing surface and subsurface facilities. The application included an updated culvert section in Chapter 3 Section 3.2 and Plate 3.2.8-1 and 3.2.8-1. Plate 3.2.8-1A was added to detail the culvert designs.

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Reclamation Plan

Bonding and Insurance General

Analysis:

The application meets the minimum requirements of R645-301-800 as the applicant is current on the bond and insurance standings. The application included updated bond sheets to Chapter 3.

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Bonding Form of Bond

Analysis:

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

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Bonding Determination of Amount

Analysis:

The application does not meet the minimum requirements of R645-301-830.140 as the Permittee is missing already approved detailed bond information in regards to the application such as NOG bleeder shaft. The application includes the additional removal of the new 24 inch culvert and two sediment boxes as the culvert outlet aprons for a total of an additional \$374 to demolition cost sheet #37 culvert backfilling. The new total of demolition in 2014 dollars is \$2,141,652, missing NOG demolition costs. The new total direct and indirect cost, with NOG bleeder shaft missing, is \$5,280,863 which is approximately \$518,000 over bonded.

Deficiencies Details:

The application does not meet the minimum requirements of R645-301-830.140 as the submitted bond sheets do not reflect the current bond items, i.e. NOG bleeder shaft. The permittee will add the culvert information, which is correct as currently presented in the Culvert backfilling sheet #37, to the current bond sheets that include all relevant bond line items that exist at the site currently. The total sheet also contains an error in the bond difference. The bond difference between cost estimate and bond is calculated using \$5,799,000 bond minus the total Cost 2014 \$5,280,863 for a total excess bond of more than \$518,000 or 9%. This figure amount is for explanation purposes only as the total cost does not include NOG bleeder shaft line items.

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Bonding Terms and Conditions Liability Insurance

Analysis:

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

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