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Technical Analysis and Findings
Utah Coal Regulatory Program

October 8, 2015

PID: C0070035
TaskID: 4963
Mine Name: SUNNYSIDE REFUSE & SLURRY
Title: CULVERTS AND ROADS

Operation Plan

Road Systems Classification

Analysis:

The application meets the minimum requirements of R645-301-527.100 by classify each road as primary or ancillary. The proposed new road through the facility site to allow ash trucks to the new ash waste disposal area is labeled correctly as primary road. Though the exact location of the road may shift through the Coarse Refuse pile due to the activating mining of the area, the end and start point of the primary road will remain in the same place.

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Road System Plans and Drawings

Analysis:

The application does not meet the minimum 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. The application does not meet the minimum requirements of R645-301-534.100 due to missing updated information within the MRP Chapter 5 Section 527.

The application included all the required plans and drawing for each road to be maintained within the permit area relevant to the upcoming ash disposal area as detailed in 5-2K; however, the text within Chapter 5 Section 527 (page 500-13) was not updated to included Plate 5-2K for the typical cross-sections of the road and plans. Appendix 5-7 details the road descriptions and was not updated within the application to include the new primary use of the road.

Deficiencies Details:

The application does not meet the minimum 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. The application does not meet the minimum requirements of R645-301-534.100 due to missing updated information within the MRP Chapter 5 Section 527.

The application included all the required plans and drawing for each road to be maintained within the permit area relevant to the upcoming ash disposal area as detailed in 5-2K; however, the text within Chapter 5 Section 527 (page 500-13) was not updated to included Plate 5-2K for the typical cross-sections of the road and plans. Appendix 5-7 details the road descriptions and was not updated within the application to include the new primary use of the road.

The Permittee will:

1. Update the text within Chapter 5 Section 527 to include 5-2K as a cited drawing for more information.

2. Update Appendix 5-7 to include a description of the new use and characteristics of Road S and Road T and drawing 5-2K, along with any other relevant road details that need to be updated.

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Road System Performance Standards

Analysis:

The application meets the minimum requirements of R645-301-534.150 by submitting plans and drawing for each road to be maintained within the permit area to prevent and control erosion. The design typical detailed with Appendix 5-7 meet the R645 requirements.

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Road System Certification

Analysis:

The application meets the minimum requirements of R645-301-521.170 by submitting plans and drawing for each road to be prepared by or under the direction of and certified by a qualified registered professional engineer.

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Spoil Waste Impounding Structures

Analysis:

The application meets the minimum standards of R645-301-533 due to updating the hydrology characteristics relevant to reclaimed areas within the watershed of mining operations. Text was updated within Chapter 7 detailing the updated outfall location of Outfall No. 008, 009, and 016. The runoff from the ponds reports now to a stream or Pond 014, respectively, before discharging into Icelander Creek. The MRP was updated to include text describing how the pasture sediment pond calculations were updated with new curve numbers and how the pasture pond discharge was re-routed to flow into the coal pile sediment pond, pond 0014. Due to the increase in flow new diversion and culvert design flows were provided for C1, C3, and C4-5.

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Hydrologic Diversion General

Analysis:

The information provided is sufficient to meet the requirements of the Utah Coal Mining Rules R645-301.

The Permittee is amending their disturbed drainage plan to facilitate the movement of a few access roads throughout the disturbed area. Sheet 7-1 has been updated to include some of these changes. Sheet 7-1 includes a large amount of hydrologic features which has made it difficult to verify what has been changed or added. The Permittee has agreed to revise Sheet 7-1 so that these features can be clearly reviewed and identified. Appendix 7-3A has been revised to remove some of the ditch and culvert designs that have been reclaimed in the pasture drainage area. This area was inspected this year and the Division requested that the Permittee update this area of the plan. Drainages have been slightly changed in the area between the Pasture Sediment Pond and Coal Pile Sediment Pond. This is to facilitate the addition of an access road. The MRP has been updated to include the calculations made to these ditches.

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Hydrologic Impoundments

Analysis:

The information provided is not sufficient to meet the requirements of the Utah Coal Mining Rules R645-301.

Page 700-6 was revised indicating that discharge from three sediment ponds will be routed through other sediment ponds before discharging off site. The amendment states that the Old Coarse Refuse Pond (outfall 008) and the Borrow Area Pond (outfall 016) will discharge to pond 018 before discharging to Icelander Creek. The Pasture Pond (outfall 009) will discharge

to pond 014 (coal pile sediment pond) before discharging to Icелander Creek.

Pond 018 is not a part of the permitted area, and is used at and adjacent facility owned by the Permittee. The Permittee has agreed to remove any discussion of Pond 018, as it is not necessary for the permit.

Sheet 7-18 should be updated to reflect changes to ditch D-9 and to the pond inlets.

Deficiencies Details:

R645-301-742 The current MRP does not contain any information on a "Pond 018" as listed on revised page 700-6. Any reference to this pond should be removed.

R645-301-742 Sheet 7-18 should be updated to reflect changes to ditch D-9 and to the pond inlets.

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Maps Facilities

Analysis:

The application meets the minimum requirements of R645-301-521.120 through-521.detailing updated culvert and ditch information on Map 5-2, 5-2K and 7-1.

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Maps Certification Requirements

Analysis:

R645-301-512 minimum requirements are met as all mine drawings and plates are stamped electronically by a Utah certified professional engineer with experience in underground mining operations.

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Reclamation Plan

General Requirements

Analysis:

The minimum requirements of R645-301-540 are met within the application as there is no change to the existing MRP reclamation details.

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Backfill and Grading General

Analysis:

The minimum requirements of R645-301-553 are met within the application as there is no change to the existing MRP grading reclamation details within Chapter 10 Section 10.5.2. No changes were made to Plates 10-3, 10-4, 10-6, and 10-7 which detail what portions of roads B,E, I, J, and R will be retained post mining operations.

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Road System Reclamation

Analysis:

The minimum requirements of R645-301-534 are met within the application as there is no change to the existing MRP reclamation of roads throughout the permitted area within Chapter 10 Section 10.5.2. No changes were made to Plates 10-3, 10-4, 10-6, and 10-7 which detail what portions of roads B,E, I, J, and R will be retained post mining operations.

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Road System Retention

Analysis:

The minimum requirements of R645-301-534 and -552 are met within the application as there is no change to the existing MRP reclamation of roads that will be retained at the end of mining that exist throughout the permitted area within Chapter 10 Section 10.5.2. No changes were made to Plates 10-3, 10-4, 10-6, and 10-7 which detail what portions of roads B,E, I, J, and R will be retained post mining operations.

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Maps Bonded Area

Analysis:

The minimum requirements of R645-301-800 are met within the application as the bonded area map was updated.

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Maps Reclamation BackFilling and Grading

Analysis:

The minimum requirements of R645-301-542 are met within the application as there is no change to the existing MRP plan of backfilling and grading areas or volumes within Chapter 10 Section 10.5.2. No changes were made to Plates 10-3, 10-4, 10-6, and 10-7 which detail what portions of roads B,E, I, J, and R will be retained post mining operations.

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Maps Reclamation Facilities

Analysis:

The minimum requirements of R645-301-542 are met within the application as there is no change to the existing MRP plan of facilities that will remain post mining operations. Chapter 10 Section 10.5.2. No changes were made to Plates 10-3, 10-4, 10-6, and 10-7 which detail what portions of roads B,E, I, J, and R will be retained post mining operations.

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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.

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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 collateral bond amount of \$1,775,000 which is held by Treasury Securities with Wells Fargo as the escrow agent.

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Bonding Determination of Amount

Analysis:

The application meets the minimum requirements of R645-301-830.140 as the Permittee submitted detailed bond information in regards to the application.

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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 Federal Insurance Company, effective until 8/1/16. The insurance includes the required Marsh from, explosives and claims made per occurrence.

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