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# TECHNICAL MEMORANDUM

Utah Coal Regulatory Program

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August 3, 2010

TO: Internal File

THRU: Steve Christensen, Team Lead *SCC*

FROM: Kevin Lundmark, Hydrologist *KWL*

RE: Midterm Permit Review, Sunnyside Cogeneration Association, Sunnyside Refuse & Slurry, C0070035, Task ID # 3547

**SUMMARY:**

In accordance with R645-303-211, the Division is required to review each active permit during its term. This Technical Memorandum presents the findings of the Midterm Permit Review for Sunnyside Refuse and Slurry related to hydrology, including:

- A review of the applicable portions of the permit to ensure that the mine plan contains commitments for application of the best technology currently available (BTCA) to prevent additional contributions of suspended solids to stream flows outside of the permit area; and
- A review of the mining and reclamation plan for compliance with operator commitments and special permit conditions related to hydrology.

The findings in this memo are based on a review of the current Mining and Reclamation Plan (MRP) and observations made during an inspection completed on July 27, 2010 (see Inspection Report No. 2442). One deficiency was identified during this review:

**R645-301-121.100** Revise the MRP text, Plate 7-1 and Appendix 7-7, as necessary, to accurately describe the ASCs currently in-place at the site.

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**TECHNICAL ANALYSIS:**

**OPERATION PLAN**

**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:**

**Water Monitoring**

Water monitoring is described in Section 731.200 of the MRP. Water monitoring data are submitted to the Division quarterly. The MRP does not include any variances or special permit conditions relating to water monitoring.

**Water-Quality Standards and Effluent Limitations**

Surface water discharges from the site are permitted under Utah Pollutant Discharge Elimination System (UPDES) permit number UT0024759. The current permit expires July 31, 2012. There are six active UPDES outfalls at the Sunnyside Refuse/Slurry Mine associated with sedimentation ponds: 007 – Rail Cut Pond; 008 – Old Coarse Refuse Pond; 009 – Pasture Pond; 012 – Coarse Refuse Toe; 014 – Coal Pile Sediment Pond; and 016 – Borrow Area Pond. The UPDES permit identifies effluent limitations for the outfalls and requires the Permittee to monitor each UPDES site monthly. No discharges from UPDES outfalls have been reported since the previous Mid-Term Permit Review completed in 2005.

**Sediment Control: General**

Utah coal mining rules R645-301-526.222, R645-301-731.121 and R645-301-742 require a permittee to apply the best technology currently available (BTCA) to minimize or prevent additional contributions of suspended solids to stream flows outside the permit area. Sediment control measures are described in Sections 732 and 742 of the MRP. Technologies employed at the Sunnyside Refuse & Slurry to prevent or minimize contributions of suspended solids to stream flows include sedimentation ponds and Alternative Sediment Controls (ASCs). These technologies are described below.

### **Siltation Structures: Sedimentation Ponds**

Six sedimentation ponds are present at the site, with each sediment pond having an associated UPDES outfall as described above. Sedimentation ponds are described in Sections 732.200 and 742.220 and Appendix 7-3 of the MRP. Sedimentation ponds are inspected quarterly and certified inspection reports are provided to the Division.

### **Siltation Structures: Other Treatment Facilities**

Alternative Sediment Controls (ASCs) are described in the MRP Section "742.230 thru 742.240 Other Treatment Facilities", Plates 7-1 and 7-20 and Appendix 7-7. ASCs employed at the site may include silt fences, straw bales; surface roughening, sediment traps, water bars, berms and rock check dams (Plate 7-20). Section 742.230 thru 742.240 of the MRP identifies 13 ASCs in-place for providing primary or secondary sediment control.

Text on page 700-20 indicates that ASCs are shown on Plate 7-1A thru 7-1E; however, the MRP includes only Plates 7-1, 7-1F and 7-1G. ASCs listed in the text do not have corresponding identifiers on Plate 7-1 (BTCA Area Nos. 1, 2 and 3 are not labeled as such on Plate 7-1). Based on observations made during the July 27, 2010 inspection, multiple ASCs listed in Section 742.230 thru 742.240 are no longer in-place, e.g., 30 linear feet (l.f.) installed prior to Sunnyside Cogeneration Association below the outlet of the coarse refuse toe pond and 30 l.f. installed 1989 at BTCA Area #1 along the permit boundary northwest of the Excess Spoil Area #2. In addition, Plate 7-1 does not reflect ASCs currently in-place at the site, e.g., there is no longer a silt fence north and northwest of the coal pile.

### **Findings:**

The current MRP does not meet the minimum requirements of the regulations. The following deficiency must be addressed:

**R645-301-121.100** Revise the MRP text, Plate 7-1 and Appendix 7-7, as necessary, to accurately describe the ASCs currently in-place at the site.

### **RECOMMENDATIONS:**

Due to the deficiency identified above, the Midterm Permit Review is not recommended for approval.