

TECHNICAL MEMORANDUM

Utah Coal Regulatory Program

November 14, 2005

TO: Internal File

THRU: D. Wayne Hedberg, Permit Supervisor

FROM: Dana Dean, P.E., Senior Reclamation Hydrologist/Team Lead

RE: Midterm Permit Review 2005, Sunnyside Cogeneration Association, Sunnyside Refuse/Slurry, C/007/0035, Task #2314

SUMMARY:

The Division initiated a midterm review of the Sunnyside Refuse/Slurry operation via correspondence with Mr. Michael Blakey of the Sunnyside Cogeneration Association on August 25, 2005. The letter outlined the following elements as those selected for review:

- “1. *An AVS check to ensure that Ownership and Control information is current and correct.*
2. *A review to ensure that the Plan has been updated to reflect changes in the Utah Coal Regulatory Program, which have occurred subsequent to permit approval (One area of emphasis is to ensure compliance with the U. S. Fish and Wildlife Windy Gap Process).*
3. *A review of the plan to ensure that the requirements of all permit conditions, division orders, notice of violation abatement plans, and permittee initiated plan changes are appropriately incorporated into the plan document.*
4. *A review of the applicable portions of the permit to ensure that the 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.*
5. *A review of the bond to ensure that it is in order and that the cost estimate is accurate and is escalated to the appropriate year dollars.*
6. *A review of the MRP commitments for the subsidence control/monitoring plans and reporting requirements.*

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7. *The Division may conduct a technical site visit in conjunction with the assigned compliance inspector to document the status and effectiveness of operational, reclamation, and contemporaneous reclamation practices.”*

This memo addresses item 4.

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:

The plan contains commitments to use the best technology currently available (BTCA) to prevent additional contributions of suspended solids to stream flows outside of the permit area. BTCA means that the operator is employing the best methods available at any one time. The Sunnyside Refuse/Slurry MRP contains the following commitments to BTCA in controlling sediment.

Water-Quality Standards And Effluent Limitations

The Permittee has a current Utah Pollutant Discharge Elimination System (UPDES) Permit, which it is abiding by. The Utah Division of Water Quality (DWQ) issued the current permit on Aug. 1, 2002. It expires Jul. 31, 2007.

There are seven point sources covered under the UPDES Permit: UT0024759-004 (clear water pond to Icelander Creek), UT0024759-007 (rail cut pond to Icelander Creek), UT0024759-008 (old course refuse pond to Icelander Creek), UT0024759-009 (pasture pond to Icelander Creek), UT0024759-012 (pond at coarse refuse toe to Icelander Creek), UT0024759-014 (coal pile pond to Icelander Creek), and UT0024759-016 (borrow area pond to Icelander Creek).

The Permittee has complied with the UPDES permit conditions during the review period. Only outfalls 009 and 012 flowed during the past five years, each just once in October of 2004, for less than 24 hours. At that time the discharge was within the required limits, except that total

iron was slightly high (1.09 and 1.5 mg/L, limit is 1.0 mg/L), most likely from iron scale within the pipes. The Permittee informed the Division of Water Quality of the situation, and no violations were issued.

Sediment Control Measures

The Permittee uses a series of culverts and ditches to divert all runoff from the undisturbed area away from the disturbed area to prevent excess sediment contribution from the disturbed area (Plate 7-1, designs Appendix 7-3). Each ditch and diversion is designed to pass the runoff from a 100-yr. 6-hr. storm. The sedimentation pond treats all runoff from the disturbed area, except in thirteen small areas where the Permittee uses alternative sediment controls.

Siltation Structures: Sedimentation Ponds

As stated previously, there are seven sedimentation ponds at the Skyline Mine, which treat runoff from the disturbed area. The Permittee designed each to pass the runoff from a 25-yr. 6-hr. storm, and to hold the runoff from a 10-yr. 24-hr. design storm until it meets UPDES limits. A Professional Engineer has certified the design and construction of each pond, and the Permittee conducts inspections as required under the regulations.

A discussion of the ponds is on page 700-17 of the MRP, and calculations are in Appendix 7-3.

Siltation Structures: Alternative Sediment Control Areas (ASCAs)

To control sediment in areas that do not report to the sedimentation pond, the Permittee currently has thirteen approved Alternative Sediment Control Areas (ASCAs). The ASCAs are depicted on Plates 7-1 A-E, and discussed on page 700-20 of the MRP.

Findings:

The thirteen ASCAs represent the Best Technology Currently Available (BTCA) in controlling sediment in areas that do not report to the sedimentation ponds. The sedimentation ponds represent BTCA for controlling sediment in the rest of the disturbed area.

RECOMMENDATIONS:

The MRP contains adequate information regarding the use of BTCA to prevent excess sediment contribution to stream flows outside the permit area. Therefore, the Division may complete the review in regards to item 4.