

# TECHNICAL MEMORANDUM

Utah Coal Regulatory Program

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December 21, 2007

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TO: Internal File

THRU: Pamela Grubaugh-Littig, Permit Supervisor 

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

RE: 2006 Midterm Permit Review, Castle Gate Holding Company, Castle Gate Mine, Permit C/007/0004, Task ID #2622

## SUMMARY:

The Division initiated a midterm review of the Castle Gate Mine via correspondence with Mr. Dennis Ware of Castle Gate Holding Company on August 29, 2006. 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 only.

**TECHNICAL ANALYSIS:**

**RECLAMATION PLAN**

**HYDROLOGIC RECLAMATION PLAN**

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:**

As described in an addendum to the 2006 Annual Report, the Castle Gate Mine has three separate disturbed areas: Adit Number 1, Hardscrabble Canyon, and Sowbelly Canyon. All three have been reclaimed and each has received at least a Phase I bond release. Reclamation began in 1984 and was completed in all areas by 2002. As part of the reclamation plan review, and bond release review and inspection, the Division thoroughly assessed the 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. At this point the BTCA for much of the Castle Gate reclaimed areas is vegetation. At initial reclamation pocking and mulch were considered BTCA. There have been no reports of erosion, or contribution of suspended solids to streams in the 7 years since reclamation was completed.

**RECOMMENDATIONS:**

The Castle Gate Mine has used, and continues to use, 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.