



State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

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December 4, 2000

TO: [REDACTED]

THRU: Daron R. Haddock, Permit Supervisor *DRH*

FROM: Gregg A. Galecki, Reclamation Specialist *GAG*

RE: Midterm Review, Canyon Fuel Company, LLC, Dugout Canon Mine, [REDACTED]
MT00

SUMMARY:

The following is a required Division Midterm Review of the Dugout Canyon Mine plan. The review is two-fold: 1) Ensure 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; and 2) review applicable portions of the permit to ensure that the plan contains commitments for the application of the best technology currently available (BTCA) to prevent additional contribution of suspended solids to stream flows outside of the permit area. This review emphasizes the hydrology aspects of the Mining and Reclamation Plan (MRP) and includes a review of past monthly inspections, submitted water monitoring data, and correspondence.

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.

TECHNICAL MEMO

Analysis:

Source information for this review include the following:

- Chapters 5, 6, and 7 from the Dugout Mine MRP
- 1998 Inspection and Correspondence folders
- 1999 Inspection, Administration, and Correspondence folders
- 2000 Internal, Compliance, Outgoing, and Incoming folders
- Water monitoring data in the DOGM database

The review indicated the requirements of all permit conditions, division orders, notice of violation abatement plans, and permittee initiated plan changes have been incorporated into the Division MRP. The most recent incorporation taking place March 30, 2000 in the aftermath of Significant Revision SR99D-3. As recommended by Daron Haddock (4/11/00 letter), a side-by-side evaluation of the Divisions' and Permittees' MRP would be a prudent exercise at this time.

Groundwater Monitoring

Groundwater monitoring consists of three wells (GW-10-2, GW-11-2, and GW-24-1) located generally in the center of the permit area and trending northwest-southeast. All three wells are completed in either the Price River Formation or Castlegate Formation which are both located stratigraphically above the Blackhawk Formation where the mining activity is occurring. Currently, it appears the mining activities are not encountering the anticipated flows from within the Blackhawk Formation. No groundwater monitoring of the underlying strata beneath the coal unit being mined is conducted for the following reasons addressed in the PHC: 1) mining is occurring immediately above the Mancos shale and no regional aquifer exists, 2) Monitoring wells at the neighboring Soldier Canyon Mine have demonstrated limited recharge, 3) the hydrologic gradient is to the north, and the groundwater movement is minimal with no outlet to the surface, and 4) the probability of contributing pollution is minimal. To date, all required groundwater monitoring data has been submitted.

Surface water Monitoring

Surface water monitoring includes DC-1 through DC-5 which evaluate surface-water conditions predominantly around the surface facilities, 10 springs distributed throughout the permit area which evaluate Formations located above the Mine, and MD-1 which is the Mine discharge. Outlined in the MRP is the protocol for collecting water samples at DC-4 and DC-5 and collecting flow data for all the springs. This is based on wet and/or dry years as defined by the snow-pack measurements as of March 1 for the Price River-San Rafael River Basin Snotel weather sites. To date, all required surface water monitoring data has been submitted. The MRP does not clearly state whether or when the data is submitted. The snow-pack data, as of March 1, should be included in 1st Quarter reports.

Sediment Control Measures

All three ASCA's were performing within acceptable limits during the on-site inspection.

Sediment Pond

Discharge from the sediment pond is covered under UPDES permit UTG040020-002A. Three noncompliant discharges have been documented since the issuance of the permit. The first discharge occurring on July 30, 1999 was attributed to a culvert blockage at DC-3 caused by debris washed into the trash rack during the storm. The blockage resulted in water being diverted over the mine site and into the Sediment pond, subsequently filling the pond to capacity resulting in a discharge. A water quality sample was collected which was analyzed and out of compliance for Total Suspended Solids and Settleable Solids. The Operator contended the occurrence was 'beyond their control' and was not a noncompliance event. Although a sample was collected and a letter written to the Department of Environmental Quality, a 'No Discharge' form was submitted to the Division for the month of July 1999

The second and third noncompliant discharges occurred October 19 and October 26, 1999 respectively. These discharges were associated with pumping of the pond from the July 30, 1999 event. This pumping was necessary to extract the excess sediment from the pond.

No quantitative data was collected documenting the accumulated precipitation from the July 30, 1999 event. Using the 'Best Technology Currently Available' (BTCA), it is necessary for a rain gauge to be installed at the mine site. A rain gauge would serve as an additional check on the holding capacity of the sediment pond. The permittee has committed to installing a weather station by approximately July 2001.

Findings:

The following pertains to observations found in Surface Monitoring, and the Sediment pond:

R645-301-731.222 submit the Snotel data with the 1st Quarter water monitoring data.

R645-100-200, using 'Best Technology Currently Available', commit to install a precipitation gauge on the Mine site to demonstrate when storm events exceed the design parameters.

RECOMMENDATIONS:

A commitment to fulfill the requirements of R645-100-200 and R645-301-731.222 as outlined above.