STATE OF UTAH
NATURAL RESOURCES
Oil, Gas & Mining

Norman H. Bangerter, Governor
Dee C. Hansen, Executive Director
Dianne R. Nielson, Ph.D., Division Director

355 W. North Temple • 3 Triad Center • Suite 350 • Salt Lake City, UT 84180-1203 • 801-538-5340

October 19, 1987

TO: John Whitehead, Permit Supervisor

FROM: Tom Munson, Reclamation Hydrologist TM

RE: Sediment Pond #9 Construction Approval, Cyprus Plateau Mining Company, Star Point Mine, ACT/007/006-87C, Folder #2, Carbon County, Utah

History of Proposal

Ben Grimes of Plateau Mining Company, and Marv Allen, a consultant for Plateau Mining Company, met with John Whitehead and myself on September 11, 1987 to discuss the permitting of proposed Sediment Pond #9. The Division received formal plans on September 22, 1987 for Sediment Pond #9. More information was requested on October 12, 1987 by phone, and received on October 13, 1987.

Analysis

A formal review was carried out and the information received was scrutinized to verify inputs and outputs for hydrologic calculations concerning riprap sizes, culvert sizes, sediment pond storage capabilities for runoff and sediment, hydraulic characteristics of outlet devices, and discharge effluent values.

The pond is designed to contain 1.98 acre-feet of sediment and 4.45 acre-feet of runoff volume. The peak inflow from the 25-year, 24-hour precipitation event is 52 CFS and the peak modeled outflow from the pond is 40 CFS. The peak effluent settlable concentration is .04 mg/l. The peak effluent concentration was determined, based on modeling sediment particle size distributions from an undisturbed watershed and the coal refuse area, and inputting this data into the Sedimont II Model. The pond incorporates two 36" drop inlet culverts for the primary and emergency outlets and a 3-inch diameter dewatering orifice. This outlet system discharges into one 60" culvert.

Recommendations

The following items will need a commitment from the operator:

1. The operator will monitor discharges when the 3" dewatering device is discharging to determine compliance with the effluent limitations.

2. The operator will incorporate all of Pond #9's technical information into a formal submittal for insertion into the PAP on October 30, 1987, when the remainder of the reclamation plan will be submitted. This will include all of the information submitted to date including particle size gradations and Maps A, B and C.

3. The operator will incorporate a 5 percent embankment height settlement factor into his design per the requirements of UMC 817.46(3)(k).

The following regulation requirement is waived by the Division:

1. The current outlet system is waived from meeting the requirements of UMC 817.46(3)(i). This variance was based on the inability of site drainage configuration to provide separate drainage systems for the primary and emergency spillways.

djh
9486R/18