

0025



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

Michael O. Leavitt
Governor
Ted Stewart
Executive Director
James W. Carter
Division Director

1594 West North Temple, Suite 1210
Box 145801
Salt Lake City, Utah 84114-5801
(801) 538-5340
(801) 359-3940 (Fax)

October 15, 1997

To: File

Thru: Joe Helfrich, Permit Supervisor-Compliance *JK for Joe Helfrich*

From: Peter Hess, Reclamation Specialist III *PH*

RE: Thickener Pond Redesign, Preparation Plant, Cyprus Plateau Mining Corporation, Willow Creek Mine, ACT/007/038-97J, Folder #2, Carbon County, Utah

SUMMARY:

The amendment noted above was received in the PFO on October 6, 1997 and assigned amendment number 97J. Four copies of the submittal were relayed to the Salt Lake DOGM office on 10/14/97 with a transmittal letter requesting that review assignments be made. Although pond designs are a hydrology issue, I would like to offer the following comments.

- 1) What is the volume of the thickener, and how does this compare with the volumes of the new triple cell design? Are the volumes of the new design achieved from total incisement? I don't want any more berm failures. Is a safety factor for excess volume included?
- 2) The redesign should include a statement from the registered professional engineer that none of the requirements of 30 CFR 77.216 are applicable.
- 3) There are no MSHA safety berms shown on any of the cross-sections; also a berm or a note on drawing number 4 of 15, 002-16-100 should show a safety berm to prevent unauthorized access down the recirculation piping access ramp on the north corner of pond "B".
- 4) Will the quarterly inspections of the three ponds be conducted individually or as a combined unit?



- 5) Drawing 3 of 15, 002-16-100 shows a "disposal stockpile area" for excess cut materials, with a NOTE: REFUSE PILE AS WELL. What does this mean? Only clean fill should be stored in this area, as determined by appearance and the testing for acid and toxic potentials. Cross sections of this area to be filled in (which will be an extension of the clean coal stockpile area) have not been provided as required by R645-301-521.164 and 301.512. The materials that lie in the bottom of these ponds are required to be tested for acid and toxic potentials according to the MRP. This "stuff" consists of refuse fines, flocculant, probably some magnetite, etc. It should be disposed of on the School House Canyon pile and not in an area adjacent to the Price River.
- 6) Mass balance calculations need to be done to determine if enough fill will be generated to do what the permittee wants to do to expand the clean coal storage pad. What will be done with any excess, if some does exist? The word "stockpile" should be removed from this area on the map, as the fill will be recontoured and utilized for another purpose.
- 7) Sediment control should be addressed, although any overflow from the emergency spillway depicted on sheet 4 of 15, drawing number 002-16-100 should flow to pond 12A. 12A is a sediment pond and calculations should be shown that adequate capacity exists to handle the design event plus the additional inflow from this redesigned pond.
- 8) Sheet 5 of 15, Drawing number 002-16-100 depicts the emergency spillway for pond "A". I can't figure out how the percentage of slope was determined, as the two elevations involved (6129' and 6124', i.e. a difference of 5 feet) over the distance which I have scaled as 81 feet where it is "tied into the existing ditch". My calculations indicate a slope of 6.17%; this is approximately double what is shown. Also, a slope of this percentile seems quite steep to me and should probably incorporate a riprap design. A plunge basin may need to be considered here.

Analysis:

It is my opinion that this submittal is lacking, and should be returned to the permittee to address these, plus any other comments aired by Ms. Falvey and/or other reviewers.