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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
P.O. Box 145801
Salt Lake City, Utah 84114-5801
(801) 538-5340
(801) 359-3940 (Fax)

December 18, 1996

TO: Joe Helfrich, Permit Supervisor

FROM: Peter Hess, Reclamation Specialist *PHH*

RE: Request for Division Order, School House Canyon Waste Rock Facility,
Willow Creek Preparation Plant, Cyprus Plateau Mining Corporation,
ACT/007/038, Folder #3, Carbon County, Utah

Upon reviewing Chapter 3, Section 3.4, Castle Gate Preparation Plant waste rock disposal site, I find several problems with the "design", such as it exists.

- 1) Page 3.4-3, paragraph 3, and I quote, "The details of the designs are given in the Golder Associated Report on "Design of a Coal Refuse Disposal System, Phase II,: Detailed Design, School House Canyon Refuse Disposal Facility", January, 1978, (Appendix 3.4A)."
- 2) Under 4.3.2, "operational factors", page 29, the only reference to compaction within the pile is that "lifts not greater than two feet in thickness will be compacted by a bulldozer". No mention is made of haul truck wheel compaction or any other method(s). I personally believe a pile of this size and configuration needs additional compaction (i.e., sheepsfoot, or other acceptable method) or regularly scheduled (that should be mandated by the MRP) compaction density tests to ensure that construction specifications are being met.
- 3) In 6.3.9, Slope Monitoring, two monitoring systems are discussed; these are surface monuments in conjunction with line stakes and standpipe piezometers, (page 85 and 86). To my knowledge, the line stakes and standpipe piezometers have never been implemented. I cannot find figure 6-3(d).

Essentially, the design for the refuse pile leaves a lot to be desired. It was prepared in 1978 when SMCRA was just getting its feet on the ground. Geo-technical recommendations (although referenced as being included within the designs) have been ignored.



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The design needs several items modified, I believe, to bring it up to date.

These are:

- (1) additional compaction requirements to ensure that construction specifications are being met,
- (2) latitudinal cross sections with a specific slope requirement to ensure that the drainage of the freshly placed refuse is positive to the 100 year 6 hour storm event diversions. The longitudinal cross section which currently exists in the MRP shows a flat pile. I feel that a revised major axis profile with the same specific slope requirement as mentioned above would further enhance the drainage within the pile,
- (3) a plan which indicates how the 100 year 6 hour storm event diversions will be maintained as the elevation of the pile is increased. A design for these ditches is also needed, i.e., what specs are to be implemented as the ditch elevations are increased?,
- 4) a pile placement sequencing plan which ensures that piles are given an adequate amount of time to drain prior to being leveled and compacted, (I believe MSHA recommends 14 days), and
- 5) a requirement that mandates the permittee to train/retrain the equipment operators performing the placement/grading/compacting/drainage requirements as necessary, again to ensure that this phase of the construction specifications are met.

The plan, as it currently exists, constantly discusses how critical proper drainage is of a refuse pile. However, when the actual meeting of specific construction requirements is looked at, the plan falls apart. At full capacity, this pile will contain approximately 3.5 million tons of waste. The pile is being added to daily. The issues need to be addressed now, not after a failure which may have the potential for major environmental impacts.

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