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PRICE RIVER COAL COMPANY

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April 28, 1982

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DIVISION OF
OIL, GAS & MINING

JIM

MAY 02 1982

Ms. Sally Keefer, Hydrologist
Utah State Department of Natural Resources
Division of Oil, Gas, and Mining
4241 State Office Building
Salt Lake City, Utah 84114

Re: Pond Relocation Construction
at Crandall Canyon

Dear Sally:

In a letter dated February 3, 1982, you required that we submit plans to you for review 90 days prior to construction of a new, relocated sediment pond for the Crandall shaft site. Some time has been needed to evaluate spatial relations due to some minor adjustments in retaining wall alignment and to recalculate rock fill quantities in respect to the areal extent needed. We now provide the required designs for your approval. We hope that you can rapidly provide such approval, since completion of the retaining wall will result in the completion of 90% of the work on the new pond. By virtue of its location and height, the retaining wall will form the entire northern and eastern embankments of the new pond. We will then only have some internal finish work and installation of the discharge structure to complete the pond.

We feel that 90 days is going to be a very difficult time constraint due to the additional area needed to accommodate the daily surface accretion of rock materials from the shafts. We need to use the existing pond area for fill materials as soon as possible.

If the weather holds, we should finish the lower section (about 500') of the retaining wall by May 1. We might allow ourselves two weeks after additional time to do the finish work on the new pond. If possible, please try to complete your review within some minimum time block so that we may avoid a costly shutdown of shaft construction because of diminished fill space.

We feel that construction of this new structure may be best addressed under Section 817.49(H)(5)(i) as an emergency measure. The existing pond, as you know, is under great stress.

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Characteristics of the New Pond Capacity:

The new pond will have a total capacity of about 53,000 ft.³. The existing pond has a design capacity of 22,680 ft.³. Additional storage area has been provided to better accommodate the excess water and sediment from shaft muck and the continued combined shaft water production of about 30 cfs. The collected shaft water is relatively pure and, we feel, could be piped directly to the stream channel as formally proposed and approved in the April 3, 1982 DOGM letter. This will be done during new pond construction for, at least, the No. 2 shaft, which is currently the largest water producer (about 20 cfs.). Dirty water, used in drilling, will come up with the shaft muck and amount to about 10,000 gpd.

Discharge Structure:

The original pond design (2-17-81) called for a discharge structure capable of passing a peak flow of 7.7 cfs. for the 25 year, 24 hour storm. This design was derived on the basis of a 7.4 acre runoff area. Recalculation of area after diversion installation reduced this figure to 6.6 acres, which would produce about 6.7 cfs. peak runoff. Original design called for an 18" cmp riser and outlet pipe at 12% slope. Average flow from muck and shaft water will contribute less than 0.1 cfs. to normal flow, resulting in a needed peak flow discharge rate of about 6.8 cfs. An 18" pipe size should be sufficient for the new spillway.

The new spillway will be of the riser and barrel construction. Attached Exhibits NP-2 and NP-3 show location and dimensions of the spillway. An oil skimmer will be fitted to the top of the riser pipe.

The top of the riser will be at an elevation two feet below the top of the retaining wall. The outlet pipe will be installed under the retaining wall on a grade of 5% for about 26' until it daylights on the natural slope. An elbow joint will be installed and another 35' of pipe attached down the 30% slope to the channel. Impact dissipation in the form of 1' plus rip-rap will be placed below the outlet.

Pond Embankment:

The entire constructed pond embankment will be formed by the retaining wall. Depth of the pond, as controlled by the eastern end of the wall, will be an average 16'. The retaining wall is of the Hilfiker welded wire wall construction.

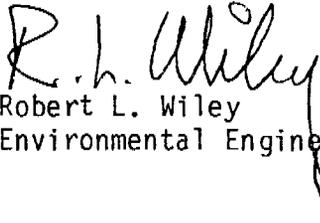
The welded wire wall is installed in 18" lifts compacted to 90% and designed to retain natural slopes or earth fill. Actual compactions during construction are being monitored by a Troxler and certified operator. Tests are indicating that 90-100% compaction are being achieved. Characteristics of the wall and construction methods are contained in a publication

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from the Hilfiker Company and will be provided again as soon as we receive some new copies.

Please contact me immediately if any additional information is needed.

Sincerely,


Robert L. Wiley
Environmental Engineer

RLW:ga

Attachments

cc: James W. Smith, Jr. - DOGM
S. McNeal - UDH
J. Montgomery - OSM