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United States Department of the Interior
OFFICE OF SURFACE MINING
Reclamation and Enforcement
BROOKS TOWERS
1020 15TH STREET
DENVER, COLORADO 80202

FILE
ACT/1015/019 #2
~~Copy to Mary~~

RECEIVED
DEC 26 1983

DEC 22 1983

DIVISION OF
OIL, GAS & MINING

MB 12/28/83

Mr. C. E. Shingleton, Director of Permitting
Utah Power & Light Company
1407 West North Temple Street
P. O. Box 899
Salt Lake City, UT 84110

Dear Mr. Shingleton:

The Office of Surface Mining has determined that the Wilberg mine permit application is complete. Accordingly, you are requested to place a notice in a local newspaper once a week for four consecutive weeks (in accordance with UMC 786.11(a)), stating that you have filed a complete application with the Office of Surface Mining and the Division of Oil, Gas & Mining. This notice should include all the information required under UMC 786.11(a), and should direct public comments to me at this address.

Please provide copies of all four newspaper notices to this office and to the Division. Note also the requirement for filing a copy for public review under UMC 786.11(d).

There are a few technical questions identified during our completeness review which remain unanswered. These are enclosed with this letter. It is essential that we receive your answers to these questions in a few days' time in order to maintain work on the technical analysis now in progress. If you require clarification of any of the remaining questions, please contact Shirley Lindsay or Walter Swain at 303-837-3806.

Sincerely,

Richard E. Dawes

for
ta
Allen D. Klein
Administrator
Western Technical Center

cc: Dianne Nielsen, DOGM
Jim Smith, DOGM

WILBERG MINE

Technical deficiencies identified as of Dec. 20, 1983

Item 1

Our review of the permanent diversion channel has identified the following potential problems. The channel velocities are predicted to exceed 18 feet per second, which will cause problems with the riprap and channel stability. We believe that the channel would be more stable if the bottom is placed on the bedrock or at least on the original channel bottom. If placed on bedrock, show a geological section along the channel profile. The riprap of the channel sides would also need to be thickened where it is protecting fill material to prevent erosion of the fills. The riprap should be designed to withstand the expected velocities wherever possible and with double thickness where it cannot be so designed.

The calculations to show the culvert capacity were not found in the permit application. Please provide.

We would expect the following information to be provided on the diversion channel for our review and approval:

1. channel invert profile on bedrock
2. riprap design specifications on size and thickness for the channel side slopes, and
3. calculations on the culvert design and specifications for installation to assure channel, road and culvert stability.

Item 2

The sediment ponds do not appear adequate to comply with performance standard UMC 817.46. The 10-year, 24-hour storm volume was determined to be 2.55 acre-feet. The sediment volume was determined to be 2.15 acre-feet. This gives a minimum pond volume of 4.70 acre-feet. As originally designed, the two ponds had a capacity of 4.79 acre-feet (1.88 for the north pond and 2.91 for the south pond). No as-built plans are presented - however post facility construction is shown on maps 3-16, 3-27 and 3-28. Correspondence to DOGM from UP&L dated January 17, 1983 show a combined volume of 3.3 acre-feet (2.0 north, 1.3 south pond). Our volume calculations from map 3-28 show a combined volume of 2.8 acre-feet (1.4 for each pond).

The applicant must provide evidence that the existing ponds have adequate storage for a theoretical 24-hour detention time, or if there is a shorter detention time, provide proof that effluent limitations will be met. Calculations must include information on the existing pond

including cross-sections, storage stage curves, stage discharge curves, and other information required for routing the design storm flows through the structure.

Also, the design calculations show 42" diameter pipe, but the plans show 36" diameter pipe. Which is correct? If the 36" diameter pipe is the size utilized, please correct all calculations based on the stage discharge curve developed for the 42" diameter pipe.

Item 3

The final bond amount proposed by the applicant appears generally adequate, but there are a number of inconsistencies and errors within the calculations for reclamation costs which must be corrected in order for OSM to find that the final bond amount has been properly derived.

I. Inaccuracies in reclamation plans and cost estimates:

1. The estimated hours for hand cultivating revegetated areas at Wilberg portal and Cottonwood fan portal are 20 and 10 hours, respectively (Item 10). These hours appear low and should be revised upward on a per acre per year basis.

2. Calculations for the Wilberg drain field (Item 7) must be provided.

3. The acreages for steep versus lesser slopes differ between Item 7 and Item 8 for the Wilberg mine and Cottonwood portal fan sites. Please correct these discrepancies so that all bond calculations are based on the same steep versus lesser slope acreage totals.

4. The following relate to the summary cost table (Items 1A -14B)

a. Item 7D. Tractor till - define the labor category. What are the components of the \$920 amount?

b. Item 9. Seed, mulch, fertilizer, plants, and netting - the average cost per acre of these materials, based on a total of \$66,325 is \$1,561. On the Estimate of Costs tables, the range of per acre materials costs is \$2,880 to \$1,800. If the \$1,561 materials cost in Item 9 is miscalculated, please correct.

II. Errors in materials cost estimates

There are errors in seed costs. For example, the cost of northern sweetvetch from Native Plants, Inc, is \$45.40/lb PLS, which would make the cost of this species alone \$454/acre at Wilberg mine site. Yet the applicant has estimated only \$350/acre for the entire seed mix. Increase the seed materials costs for all disturbed areas showing costs for both individual species (per lb. PLS) and total costs for seed mixtures in the supporting calculations.

III. Missing plans and items (UMC 817.111 - .117)

1. Costs for the revised planting mixture for the Cottonwood fan portal site.
2. Irrigation costs for the Cottonwood fan portal site if irrigation is to be used the first year.
3. Costing revisions for the waste rock disposal site plan as finally approved.
4. Costing for berm revegetation at the waste rock disposal site. Costs to include techniques used for steep slope revegetation.

IV. Corrections to waste rock sampling plan (UMC 817.103)

1. Revise costs for the waste rock sampling plan at the waste rock disposal site and include as a separate line item in Item 7.

V. Item in plan but missing from reclamation costs: If fencing is retained in the waste rock disposal site plan costs must be included.

VI. Reclamation cost corrections relating to revised topsoil handling

1. Revise costs relative to salvaging, stockpiling, and reapplying 18 inches of topsoil vs 12 inches at the waste rock disposal site.
2. Add costs for ripping all roads and the fill material at the Cottonwood fan portal site.

Item 4 (Miscellaneous)

1. In order to determine final success of revegetation for bond release, a formula for statistical comparison test or a named statistical comparison test must be provided.
2. At the rock waste disposal site, the sampling method for physical and chemical analyses of the surficial material underlying topsoil is unacceptable because the samples would be combined into a single sample, diluting evidence of potential toxicity and preventing the identification of the source of such toxicity. Each sample should be analyzed and reported separately. In addition, the costs of such sampling must be included in the reclamation cost section.
3. Although the seed mixture has been approved by DOGM and the Forest Service, it is our opinion that the approval was with the understanding that the seed application would be by drilling. Since the applicant proposes to broadcast, the seeding rate should be doubled for this application.

4. Provide surface acreages broken down by State, Federal and private ownership.

5. Identify the methods for seed bed preparation for all sites. This should be included in the reclamation plan, not just listed in the reclamation costs section.