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FILE ACT/015/009 #2
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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

RECEIVED
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DIVISION OF
OIL, GAS & MINING

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Mr. Allen Childs
Trail Mountain Coal Company
P.O. Box 370
Orangeville, Utah 84537

Dear Mr. Childs:

Completion of the initial technical analysis process for the Trail Mountain permit application package submittal has identified additional technical deficiencies which require an adequate response before a permit can be issued. Following are the issues of concern.

1. The narrative in the application (Appendix 9) does not clearly differentiate between soil reclamation and cut-and-fill material handling. To allow determination of compliance with UMC 817.22 and 817.24, the applicant must either explain in detail how "soil" will be separated from the existing disturbed area and returned to the graded surface, or identify the material to be used as the growth material following grading.

2. During reclamation of the riparian area, the applicant proposes to incorporate fertilizer into the soil by discing and harrowing. With respect to the Grassland-Shrub area, the applicant states that fertilizer will be incorporated by land imprinting and contour trenching. The discing and harrowing proposed for the riparian area will adequately incorporate fertilizer; however, in evaluating the applicant's proposals to determine compliance with UMC 817.25, it does not appear that adequate incorporation can be accomplished via land imprinting and contour trenching. Land imprinting is believed to be primarily a surface treatment which could not redistribute surface-applied fertilizers to lower seedbed depths. Contour trenching would affect only a limited area of the slope surface. Given these concerns, coupled with the fact that phosphorous is a relatively immobile element not subject to leaching, the applicant must revise the reclamation plan for the Grassland-Shrub community to include techniques applicable for incorporating fertilizer into the seedbed.

3. Detailed design calculations for the proposed contour trenches must be provided to evaluate compliance with UMC 817.43 concerning diversions and conveyance of overland flow. The applicant must provide the following information.

   a. Calculations for the 10-year 24-hour runoff events.

   b. Annual sediment yield for the "reclaimed" and "undisturbed" hillslope respectively.

c. A location map with design details for the proposed erosion control structures.

4. To demonstrate compliance with UMC 817.44 concerning stream channel diversions, applicant must provide the following information.

   a. Design details for the inlet section of the side canyon culvert.

   b. Design details for the confluence of the side canyon culvert with the Cottonwood Creek culvert.

   c. As-built specifications on the type of culverts used, in particular corrugation configuration and construction (a.e. 2-1/2x9, Annular).

   d. Entrance and exit flow velocities and calculations for the Cottonwood Creek culvert.

   e. Provide details on width, depth, and grain size (D_{16}, D_{50}, D_{84}) of riprap structures for the following: (1) Cottonwood Creek culvert, inlet, and outlet; (2) Side Canyon culvert inlet; (3) reclaimed Cottonwood Creek; and (4) reclaimed Side Canyon Creek.

   f. In order to adequately demonstrate the ability of reclaimed channels to pass the 100 year, 24 hour storm event, the applicant shall propose the use of a riprap filter or filter blanket, or demonstrate that natural underlying material will be adequate, and provide size analysis for proposed riprap as well as underlying soils.

   g. Provide volumetric calculations and quantity and quality of the riprap available for the 2,000 feet of stream channel reconstruction.

   h. Institute a visual inspection program designed to monitor the stability of riprap structures which have already been constructed.

5. Rule UMC 817.13, concerning casing and sealing of underground openings has not been addressed with regard to abandonment of drill holes. The applicant must comply with the requirements of this rule.

6. To support the contention that the temporary coal waste piles stored near the tipple are isolated from the surface- and ground-water system, the applicant must provide the information required by UMC 817.48(c), concerning acid-forming and toxic-forming materials relative to hydrologic balance.

7. Because of the anticipated infrequent need for surface blasting, the applicant has not formally committed to the below listed requirements. Since the possibility exists that blasting may be required, the applicant must address the following requirements.

   a. Blasting operations must be conducted by persons who have been trained, examined and certified as provided by 30 CFR 850 and applicable regulations of the State Industrial Commission as required by UMC 817.61(c).

b. Blasting operations must be conducted within a specified time period as required by UMC 817.65(b).

c. Warning and all-clear signals must be defined as required by UMC 817.65(c).

d. A commitment to use the scaled distance formula in the design of all blasting rounds must be provided as required by UMC 817.65(k).

8. To demonstrate compliance with the requirements of UMC 817.86, the applicant must provide plans for extinguishing coal waste fires. The applicant must obtain MSHA approval for the proposed plans.

9. The applicant must obtain MSHA approval for the proposed disposal of coal wastes underground as required by UMC 817.88.

10. The applicant must commit to not use persistent pesticides in the area as required by UMC 817.97(d)(7).

11. Though the applicant committed to burying coal waste piles, the regulatory authority is concerned that the surface material upon which the waste piles are located will be contaminated with coal waste. This condition is also possible at all coal handling and load-out facilities. The applicant has not demonstrated that cut-and-fill materials containing a high percentage of coal waste would be suitable as a growth medium. Therefore, it is necessary for the applicant to commit to burying all spoil contaminated with coal waste under four feet of non-toxic fill as required by UMC 817.103.

12. The applicant must submit a detailed plan for the identification, handling, mixing, and/or burial of cut-and-fill materials exhibiting unsuitable EC and SAR levels. To evaluate compliance with UMC 817.103, the plan must include the details of a pre-grading and post-grading materials sampling plan, including sampling depth and methodology of sampling, number of samples to be taken, areal distribution of samples, sampling locations, and laboratory analysis to be performed. The plan must identify the EC and SAR levels by which material will be considered suitable or unsuitable. In addition, the plan must detail the mechanical methods by which segregation and burial and/or mixing will be accomplished such that unsuitable material will be appropriately buried or diluted. Lastly, the applicant must submit calculations and a narrative, based on existing data, showing that sufficient suitable cut-and-fill material exists for use as a growth medium after accounting for the burial and/or dilution of unsuitable materials.

13. To demonstrate compliance with UMC 817.106, the applicant must provide the following commitments: (a) slides and other damage will be reported to the regulatory authority within a specified time after their occurrence, and (b) provide a plan for regrading and monitoring of rills and gullies.

Additions to the bond must include a 15 percent contingency fee and a 2 percent contracting fee which will have to be assumed by the regulatory authority should contracting be required. Specific questionable items are listed below. In some instances, correction of these items may require that the bond be revised.

Conveyor Structure - Total cost for materials and equipment, two shifts at $500 each, should be $1,000 rather than the $560 listed.

Culverts - Labor costs were multiplied incorrectly from labor amount and man-cost per shift figures. The figures $3,600 and $4,800 should have been $7,200 and $9,600 respectively.

Soil Sampling - Costs for laboratory analysis are adequate for the post-grading sampling plan. However, laboratory costs must be increased to reflect costs encountered as a result of the pre-grading and post-grading backfill sampling program. Labor costs must be identified for all sampling plans and programs. The applicant must indicate where in the existing costing the labor for post-grading fertility sampling is located. Labor costs for the fill-sampling program, because they are additional costs relative to existing bond calculations, should be itemized separately.

Seedbed Preparation (Grass-Shrub and Riparian) - Supporting calculations are required with respect to seed costs. The applicant should include a table showing cost per pound (PLS) and cost per seeding rate (PLS) for each species included in all seed mixtures including mixtures in tables 9-15 and 9-16. This is necessary to ensure that the projected seed cost included in the bond estimates are accurate.

Containerized - The applicant must revise the bond estimate in terms of both labor and materials expense when the per-acre seedling transplanting rate is resolved. Materials cost "per seeding" must be identified.

Your response to these issues must be received at the OSM Western Technical Center no later than March 16, 1984, so that the OSM contractor can incorporate your responses into the final technical analysis to be issued on March 23, 1984. If you have any questions, please contact Louis Hamm or Walter Swain at (303) 837-3806.

Sincerely,

Allen D. Klein
Administrator
Western Technical Center

cc: Robert Hagen, OSM - Albuquerque Field Office
Dr. Dianne Nielson, DOGM
James W. Smith, Jr., DOGM
Mary Boucek, DOGM