



STATE OF UTAH
NATURAL RESOURCES
Oil, Gas & Mining

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March 27, 1986

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

Dear Mr. Childs:

RE: Initial Completeness Review and Technical Deficiencies,
Trail Mountain Mine, ACT/015/009, #2, Emery County, Utah

Enclosed please find the Division's Initial Completeness and Technical Deficiency comments for the Tract II Lease addition application. These review comments are being transmitted to you prior to receipt of comments from other federal and state agencies. The other comments will be forwarded to you as soon as they are received by the Division.

It is requested that Trail Mountain Coal Company not respond to these comments until the other agency comments are received so that your response will address all issues raised.

Please feel free to contact me if you should have any questions.

Sincerely,

Lowell P. Braxton

Lowell P. Braxton
Administrator
Mineral Resource Development
and Reclamation Program

JJW/btb
Enclosure
cc: Allen Klein
Technical Review Team
9294R-55

FILE COPY

INITIAL COMPLETENESS REVIEW

Trail Mountain Coal Company
Trail Mountain Mine
ACT/015/009, Emery County, Utah

March 27, 1986

UMC 771.23 General Requirements for Format and Contents - PGL

(e)(1) The only map of the permit area at a scale of 1" = 500' is Figure 8-1 (Soils Map) and listed as a mine plan boundary. Figure 3-9 designates the mine plan area, but not at 1" = 500' as required by this regulation. Please submit a "Permit Boundary" map at a scale of 1" = 500'.

UMC 771.25 Permit Fee - PGL

Verification of the \$5.00 application fee must be included in the Permit Application Package (PAP).

UMC 783.12 General Environmental Resources Information - PGL

Figure 3-6 confusingly illustrates the mine sequence for three years. This figure needs better distinction of the mine sequence. Figure 3-8 illustrates coal recovery, but not mine sequence. Figure 3-6 and 3-8 must be compatible.

UMC 783.13 Description of Hydrology and Geology: General Requirements - JRF and RVS

The applicant refers to Figure 7-2 as showing the relationship of the piezometric surface of the Blackhawk-Starpoint aquifer to the elevation of the base of the Hiawatha coal seam. Figure 7-2 as labeled does not show the Hiawatha coal seam or the piezometric surface. The applicant also refers to Figure 6-4, the geologic cross section, as demonstrating the relationship between the piezometric surface and the Hiawatha seam. This figure does not represent a piezometric surface or a geologic cross section. Appendix 7-A is referred to as containing water quality and quantity information on the runoff-fed ponds in the Tract 2 area. These data are not legible in Appendix 7A. Please provide clearer Xerox copies of these data.

(a) The applicant must clarify information given on Figure 7-1. Specifically, two springs are designated T-4 and no locations are indicated for Springs T-7 and T-10.

UMC 783.14 Geology Description - RVS

(a)(2)(iii) The applicant must submit Table 6-3 and indicate on a map the locations of samples utilized for roof and floor analyses. The Division recommends that for the Tract 2 Permit Application Package (PAP), roof and floor samples be located at the northern and southern extent of the accessible workings adjacent to the proposed permit area.

(a)(2)(iv) The applicant must indicate on a map the locations of the seven samples utilized for the coal analyses given in Table 6.1. The Division recommends that for the Tract 2 PAP, coal samples be located at the northern and southern extent of accessible workings adjacent to the proposed permit area.

UMC 783.15 Ground-Water Information - RVS

(a)(4) Water quality data submitted in Appendix 7-C under the designation "observation well" should be assigned the appropriate well code. The applicant should update water quality data to incorporate recent analyses.

(b) The applicant must submit water level data for observation wells and rate of inflow data for monitoring station UG-1.

UMC 783.16 Surface Water Information - JRF

In Section 7.2.4 of the Mining and Reclamation Plan (MRP), the applicant states that the yearly withdrawal from "Crandall Creek" will be 2.4 acre-feet. "Crandall Creek" cannot be located on the surface water map. Furthermore, the applicant states that the 2.4 acre-feet withdrawal is insignificant. The applicant does not submit information to characterize the insignificance or the seasonal variation in water quantity or quality for the perennial creek in question.

UMC 783.17 Alternative Water Supply Information - JRF

According to the MRP (page 7-17), Trail Mountain Coal Company has shares in the Cottonwood Creek Consolidated Irrigation Company. These shares are to mitigate the diversion of water from Cottonwood Creek for mine use. A copy of these shares should be submitted with the MRP.

UMC 783.20 Fish and Wildlife Resource Information - KMM

Since no surface disturbance is planned for this revision, the data are generally adequate. The revision should, however, include some discussion of the tiger salamander, the only species of high state interest that is likely to occur in the Tract 2 area and may be impacted if subsidence affects damage seeps and/or ponds.

UMC 783.22 Land-Use Information - KMM

What level of grazing is approved for and/or used in the area? If water sources are damaged, what impact will displaced cattle have on adjacent area vegetation?

The applicant indicates that several springs have been developed for stock watering and that four runoff-fed ponds exist in the area. These should be indicated on Figures 7-1 and 7-2 or 3 as stated. The information from Figure 4-4 indicating one water trough and one stock pond should also be transferred to a map of reasonable scale. The applicant states that if seeps are disrupted by subsidence, they will be replaced with guzzlers accessible to wildlife but not to livestock. Will any provisions be made for the postmining land use of livestock grazing in this designated allotment area? Has the landowner been appraised of the possible loss of livestock watering facilities?

UMC 783.24 Maps: General Requirements - PGL

(b) The boundaries of land within the proposed permit area upon which the applicant has the legal right to enter and begin underground coal mining activities must be illustrated on a map.

(d) The location of all buildings in and within 1,000 feet of the proposed permit area must be on a map. If this is not applicable, it must be stated as such.

(g) The location of all mine discharge points must be shown on a map.

(l) The location of surface and subsurface man-made features within, passing through, or passing over the proposed permit area must be shown on a map (electrical transmission lines, pipelines, etc.).

UMC 783.25 Cross Sections, Maps and Plans - PGL

(a) The locations and elevations of test borings and core samplings must be shown on a map.

(e) The location and extent of known workings of active, inactive, or abandoned underground mines, must be shown on a map.

(i) Figure 3-1 needs to relate the Tract 2 relationship to the surface facilities.

All of the maps for this section must be certified.

UMC 784.11 Operation Plan: General Requirements - PGL

(b)(4) The applicant correlates the coal waste to the waste in the present mine. Data must be submitted to document the amount of mine development waste expected for Tract 2.

UMC 784.13 Reclamation Plan: General Requirements - PGL

(b)(8) A description of the sealing of boreholes and exploration holes must be addressed in Tract 2.

UMC 784.14 Reclamation Plan: Protection of Hydrologic Balance - JRF and RVS

(a)(1) The applicant should incorporate the Division's revised Water Quality Monitoring Guidelines. The guidelines should be adopted for all monitoring in the Tract 1 and 2 areas and the adjacent areas. These data should be in accordance with Table 4 of the guidelines.

(a)(3) The applicant states on page 7-6, Section 7.1.3.2 of the MRP, that the Blackhawk formation should become increasingly saturated as mining progresses down dip. This statement is contradictory to what the applicant states in Section 3.4.3, Protection of Hydrologic Balance. If the coal-bearing formation becomes more saturated, it seems that there would be some impacts due to dewatering. If dewatering is required, the applicant must address water treatment facilities under UMC 784.14(b).

(c) The applicant must provide a brief discussion of previously collected surface- and ground-water data and an attendant analysis of the potential impacts, associated with the proposed operations, to the quantity and quality of surface and ground water. (See Draft

Office of Surface Mining Guidelines for Preparation of a Probable Hydrologic Consequences Determination (PHC), December 1985.)

(d) The Division recommends permanent portal sealing incorporate installation of a two-inch diameter water drain pipe through the concrete seal to the surface at the lowest entry.

UMC 784.17 Protection of Public Parks and Historic Places - KMM

The revision states that no historic resources are known from the project area. The maps and data provided in the plan indicate that both 1978 and 1983 cultural resource survey work was done outside of the Tract 2 area. Neither survey work nor literature search provides data on the Tract 2 area. Jim Dykman of the Office of State History is referenced as saying that there are no cultural resources of concern in the area. Is this based upon additional data on the Tract 2 area not included in the Revision?

UMC 784.19 Underground Development Waste - PGL

The subject of underground waste was not addressed in the submittal. The expected quantities of development waste must be given. Will there be a need for disposal of development waste on the surface, if not, please document why.

UMC 784.20 Subsidence Control Plan - RVS

(a)(2) The applicant must submit subsidence data collected under the previously approved monitoring plan for the Tract 1 PAP.

(b)(1) The PAP indicates renewable resource lands exist above the area of proposed mining (e.g., areas for the recharge of aquifers). Therefore, the applicant must provide a description of the measures to be taken to prevent subsidence from causing material damage to the surface, including the anticipated effects of planned subsidence. The Division recommends that the applicant derive a plan view map of the projected maximum area of subsidence at the surface. The methodology used to derive the projected area of subsidence should be described and conform with angle-of-draw values, etc., given elsewhere in the PAP.

UMC 784.21 Fish and Wildlife Plan - KMM
(UMC 817.97 Protection of Fish, Wildlife, and Related Environmental Values)

The applicant should elaborate on or reference the statement that subsidence may improve forage production.

The applicant also states that the presence of wildlife in the Tract 2 area indicates their adaptability to mining. The revision does not include any data on the presence of wildlife in the Tract 2 area but only discusses their potential for occurrence. Have any field studies been conducted on the Tract 2 area? Please explain.

The applicant states that impact on raptors should be minor because the undermined cliff area is small and overburden relatively thick. The applicant should discuss the impacts of road realignment on the golden eagles nesting across the canyon. Particular attention should be paid to work which will be done during the February 15 to July 15 breeding season.

The applicant should also discuss the impacts of road reconstruction on the riparian zone and macroinvertebrates in Cottonwood Creek and sediment loading of Straight Canyon Creek.

UMC 784.23 Operation Plan: Maps and Plans - PGL

(a) Does Figure 3-6 show the entire extent of underground coal mining activities to be conducted?

(b)(5) If there will be surface disposal of underground development waste the disposal area must be shown on a map.

TECHNICAL DEFICIENCIES

UMC 817.13-.15 Casing and Sealing of Exposed Underground Openings:
General Requirements - RVS

The applicant must provide a description of methods utilized to temporarily and permanently seal boreholes. Moreover, the applicant must describe procedure for temporarily abandoning portals.

UMC 817.41 Hydrologic Balance: General Requirements - RVS

Ground Water

The applicant must identify those ground-water sources (i.e., springs, boreholes, inflows) that will adhere to baseline monitoring schedules and parameters as opposed to those that will be monitored according to operational schedules and parameters.

UMC 817.42 Hydrologic Balance: Water Quality Standards and
Effluent - JRF

The applicant does not propose any surface disturbance for the Tract 2 mine. The Tract 1 surface facilities will be used to access the Tract 2 mine workings..

The applicant has discharged water from the mine at irregular intervals. The applicant must demonstrate compliance by changing the verbage in the Tract 2 MRP to reflect periodic mine discharge. Furthermore, the applicant must provide proof of the NPDES permit alteration for the underground discharge point. The surface location of the discharge point must be identified on Figure 7-3.

UMC 817.50 Underground Mine Entry and Access Discharges - RVS

The PAP indicates additional subsurface water will be encountered during Tract 2 operations. Accordingly, following mine abandonment the workings may flood and unplanned gravity discharges may occur. The applicant must address potential gravity discharge by committing to postmining monitoring and providing treatment, if necessary, to satisfy applicable state and federal effluent limitations for the period of discharge.

UMC 817.52 Hydrologic Balance: Surface and Ground-Water Monitoring
- JRF

The applicant must upgrade the surface- and ground-water monitoring plan to conform to the Division's revised Water Monitoring Guidelines (January 1986) for the Tract 2 area. There are contradicting water monitoring plans in the PAP (see part 6, Appendix 7-A, and Appendix 7-2, Table 1). This must be clarified.

UMC 817.55 Hydrologic Balance: Discharge of Water Into An
Underground Mine - JRF

The applicant diverts water from Cottonwood Creek for use underground (see Section 7.2.3.1). Please quantify the amount of water used underground. The applicant states in Section 7.2.3 that Appendix 7-A has the water rights for the diversion of water from Cottonwood Creek. Please provide details such as the quantity and approved use of the right.

UMC 817.59 Coal Recovery - RVS and PGL

The applicant should justify single seam coal recovery (Hiawatha seam) by summarizing borehole data and conclusions given in Davis and Doelling (1977).

The Bureau of Land Management (BLM) approval of the Resource Recovery Protection Plan for this tract must be included in the PAP.

UMC 817.111-.117 Revegetation - KMM

Revegetation should not be an issue unless subsidence creates surface disturbance. The applicant should commit to "spot" revegetation of surface disturbance from subsidence using materials and methods in the approved MRP.

UMC 817.131 Cessation of Operations: Temporary - PGL

The applicant must include a commitment that if the operation temporarily ceases then monitoring will continue.

Other Deficiencies

1. Figure 1.1 must be included in the PAP.
2. A signed permit approval (signed by company personnel) must be included in Appendix 3 (Chapter I).