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DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

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August 18, 1988

Mr. Dan Guy, Manager
Permitting/Compliance
Beaver Creek Coal Company
P. O. Box 1378
Price, Utah 84501

Dear Mr. Guy:

Re: Review of #8 Mine Amendment, Beaver Creek Coal Company, Gordon Creek #2 & #7 Mine ACT/007/016, Folder #2, Emery County, Utah.

Attached is the Division's initial review of the #8 mine amendment forwarded to our offices on June 22, 1988. The attached review is identical to the draft delivered to you on August 4, 1988 by Brent Stettler. If you should have any questions on how to address the deficiencies identified herein please feel free to contact me. Please assure that your response to this review reaches the Division no later than September 1, 1988.

Sincerely,

John J. Whitehead
Permit Supervisor
Reclamation Hydrologist

JJW/cl
cc: Tech Review Team
W. Malencik
J. Helfrich
WPP46/5

an equal opportunity employer

NUMBER EIGHT MINE PORTALS AMENDMENT
GORDON CREEK #2 and 7 MINE
ACT/007/016-88A

Beaver Creek Coal Company
August 2, 1988

UMC 771.23 Permit Applications - General Requirements for Format and Contents - (JSL/PGL)

(b) The contents of Figure 8-1, SCS Verification of Soil Type for Number 8 Mine should have been received by Beaver Creek Coal Company (BCCC) by now (requested in 1983); please submit this information to the Division.

(e)(1) Plate 3-3b entitled Castlegate "A" Seam requires reference points, legends and symbols like those shown on approved Plate 3-5 Castlegate "A" Seam for Gordon Creek #2 and #7. Please correct.

UMC 783.20 Fish and Wildlife Resource Information - (BAS)

(a) The Number 8 Mine amendment must include a copy of the Division of Wildlife Resources letter dated July 6, 1988, which affirms that no high interest avifauna or their nests occur in te proposed disturbance area.

UMC 783.25(h) and UMC 784.23(a) and (b)(2) - (PGL)

Disturbed areas delineated on Plate 3-1B (#8 Surface Mine Facilities) are greater than those shown on approved Plate 3-1A for the Gordon Creek #2 and #7 Mine. Please correct.

UMC 784.13 Reclamation Plan: General Requirements - (BAS)

(a) Abandonment of foundations in one piece is not acceptable (page 3-27c). Foundations must be broken up before being place in backfill material. Please state where will foundations be buried?

(b)(3) - (PGL) Postmining topography on Plate 3-2b is different than approved Plate 3-7A (postmining topography) portrayed for the Gordon Creek #2 and #7 Mine. Please correct.

Excess material (8000 cy) will be stored in an abandoned pond. Dimensions and capacity of the pond must be given to demonstrate adequacy.

The amount of backfill material required for reclamation of the #8 mine must be shown; i.e., a mass balance table must be included.

(b)(5)(i) The MRP and Number 8 Mine amendment lack a satisfactory revegetation schedule. At permit renewal, a schedule similar to the one found in Appendix A "Revegetation Guidelines for Utah Coal Regulatory Program" must be incorporated into the plan.

(b)(5)(ii) The seed mix on page 9-4 includes timothy (*Phleum pratense*), an introduced species, at the rate of almost 60 seeds/ft^2. Timothy must be replaced with a native, alpine timothy (*P. alpinum*), at the reduced rate of .5 pounds per acre.

The number of shrubs to be planted (600/acre) appears low, considering the area's use by big game. Also, the rate of tree plantings along seep and channel restoration areas appears too low to promote bank stabilization and wildlife cover. However, the adequacy of the seed/seedling mix is impossible to judge in the absence of a success standard.

(b)(5)(vi) Section 9.2, Revegetation Success, proposes to use an adjacent comparison area as a revegetation success standard. Vegetation sampling of both proposed disturbed and comparison areas is required, in order to evaluate the similarity between the two and guide the operator in development of a seed/seedling mix which will assure bond release. If the operator chooses, the Douglas fir reference area, which was sampled in 1980 (MRP, page 9-4) may be used as a success standard. Vegetation data must be incorporated into Chapter 9 with regard to either baseline sampling or use of the Douglas fir reference area.

An additional standard of success is needed for re-establishment of woody plants along seep and channel restoration areas.

Understory cover is often low in coniferous forests--so far as live vegetation is concerned. Notwithstanding, the operator must establish sufficient vegetative cover to adequately control erosion. In addition, understory productivity must be capable of supporting the postmining land use, which includes livestock and wildlife foraging.

UMC 784.14 Reclamation Plan: Protection of Hydrologic Balance - (JRF)

Comparison of Plates 3-1b and 7-1b indicate that the Number 8 Mine pad will be constructed over a seep. Please provide mitigative descriptions on stability problems associated with this construction.

The operator must commit to revegetating road and pad outslopes with an approved operational seed mix. Vegetation will ensure stability of the slopes and decrease erosion.

UMC 784.20 Subsidence - (RVS)

The applicant proposes to develop the Castlegate A seam in a portion of Section 19, T13S, R8E. Surface ownership is controlled by Calvin K. Jacob and Sons Partnership, whereas subsurface coal ownership is controlled by the Federal government and Marilyn C. Halamandaris, et al.

Surface land use includes grazing, which by definition is incorporated into "renewable resource lands." Overburden thickness ranges from 100 to 500 feet (Plate 3-3b).

Inasmuch as the Division believes that subsidence could cause material damage or diminuition of value or foreseeable use of the land, the applicant must provide a subsidence monitoring plan for the proposed development area [see UMC 784.20(b)(3)(v)].

UMC 784.22 Diversions - (JRF)

The amendment does not contain sufficient information on reclamation diversions. As required by this regulation, "each application shall contain descriptions, including maps and cross-sections, of stream channel diversions and other diversions to be constructed within the proposed permit area to achieve compliance with UMC 817.43-817.44.

Two channels will be affected by the Number 8 Mine portal pad; the Left Fork of Bryner Canyon and a small tributary entering the east side of the portal area. Please provide descriptions, maps and cross-sections of reclamation for these channels.

Plate 3-7A (2/7 Mine Plan) must be modified to include the Number 8 Mine area. Length of riprap must extend into the natural channel a sufficient distance to prevent erosion at the natural/ riprap channel transition zone. Side drainage channels must be shown on Plate 3-7A.

Plate 7-1b shows a 12-inch culvert (existing) that diverts runoff from the Number 7 Mine highwall. Please clarify outlet drainage for this culvert. The operator commits (page 7-8) to installing energy dissipators should erosion become evident on the access road ditch. The Division has determined that erosion will occur; please provide specific drawings for installation of energy dissipators. Include location of installation.

Plate 7-1b shows yard drainage directed over the pad outslope. The pad must be constructed to convey runoff towards the highwall into a collection ditch and then into the 36-inch culvert.

UMC 784.23(b)(3) - (PGL)

The area of land for which the performance bond will be posted must be outlined on a map for the Number 8 Mine (include entire #2, #7 and #8 mine bonded area).

UMC 784.24(a) - (PGL)

A commitment to maintain results at the minesite of "verification of bench embankment compaction at 95 percent of the original as determined by Modified Proctor Analysis" must be included in the amendment.

The applicant must state whether berms or guardrails will be used on the road; conflicting statements appear on page 3-9 and 3-9e of the narrative. Please clarify.

UMC 788.12(c) - (PGL)

Gordon Creek #8 Mine is an amendment, not a revision. Therefore, Figure 2-2 (page 2-9) and proposed newspaper advertisement in Section 2.11 on page 2-10 are not required. Please delete.

UMC 817.22 Topsoil: Removal - (JSL)

Section 3.4.2 states that topsoil will be removed from all areas to be disturbed. This statement is inconsistent to that stated in Section 3.2.1. Please clarify.

If the statement in Section 3.2.1 concerning areas where topsoil will not be removed is correct, then the applicant must clearly delineate on a map all areas that pose a safety hazard, or are impractical because of rockiness, or limited by topsoil depth. Each location must specifically define the percent of rockiness, reason of safety hazard or depth of topsoil.

Section 3.5.4.4 indicates that subsoil may be used for substituted topsoil. The justification for the need of substitute topsoil must be described. If substitute topsoil material is required for reclamation success, then the operator must meet Part (e) of UMC 817.22, including either trials and/or analysis of the substitute topsoil.

UMC 817.23 Topsoil: Storage - (JSL)

The topsoil stockpile protection seed mix must be defined within the text of the PAP. Please refer to an existing seed mix in the approved PAP, or include a proposed seed mix for the Division's review.

UMC 817.24 Topsoil: Redistribution - (JSL)

Section 3.5.4.4 must be modified to indicate that the minimum topsoil redistribution depth will be no less than 8 inches, with an average redistribution depth of 12 inches.

UMC 817.97 Protection of Fish, Wildlife, and Related Environmental Value - (BAS)

(b) Of the special conditions imposed at issuance of the Gordon Creek #2 permit, Number 11 stated that populations of Hedysarum occidentale var canone were to be located and mapped. The Division will perform the clearance survey, and provide a report of survey results, as a service to the permittee.

UMC 817.116 Revegetation: Standards for Success - (BAS)

(a) At permit renewal, the operator must provide a map which identifies the appropriate success standard for each disturbance area. Two reference areas are proposed as standards for the #2 mine, whereas baseline data is proposed for the #7 mine; but it is not clear where one area ends and the other begins.

(b)(3)(iv) Planting rate cannot be used for woody plant success determination, as proposed in the MRP, page 3-94. During years 9 and 10 of the bond liability period, woody plant density will be judged on the basis of reference area or baseline standards. This must be corrected at permit renewal.

(c)(2) The MRP lacks a satisfactory revegetation monitoring schedule. A monitoring schedule similar to Table 1, "Revegetation Guidelines for Utah Coal Regulatory Program" must be incorporated into the plan at permit renewal.

UMC 817.121-.124 Subsidence Control - (RVS)

The applicant must provide a commitment to notify surface owners as described under UMC 817.122.

To achieve compliance with UMC 817.124, the following must be provided:

1. The applicant shall commit to restoring areas impacted by subsidence-caused surface cracks or other subsidence features such as escarpments (not to include naturally occurring escarpments that are not a result of mining) which are of a size or nature that could, in the Division's determination, either injure or kill grazing livestock. Restoration shall include recontouring of the affected land surface including measures to prevent rilling, and revegetation in accordance with the approved permanent revegetation plan in the PAP. Restoration shall be undertaken after annual subsidence survey data indicate that the surface has stabilized, but in all cases restoration and revegetation shall be completed prior to bond release.

2. The applicant shall commit to compensate surface owners, except for land grazed by the applicant, for lands which cannot be safely grazed due to hazards caused by surface effects of subsidence, with land (in close proximity) of comparable size and grazing capacity to be used for grazing until restoration of the damaged land is achieved; and

3. The applicant shall commit to compensate at a fair market value owners of livestock which are injured or killed as a direct result of surface hazards caused by subsidence.

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