

0021

C:\OSM\OGM ACR

MADE 5K
UNIT COPY



SCOTT M. MATHESON
Governor

OIL, GAS, AND MINING BOARD

GORDON E. HARMSTON
Executive Director,
NATURAL RESOURCES

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES

CHARLES R. HENDERSON
Chairman

CLEON B. FEIGHT
Director

DIVISION OF OIL, GAS, AND MINING
1588 West North Temple
Salt Lake City, Utah 84116
(801) 533-5771

JOHN L. BELL
C. RAY JUVELIN
THADIS W. BOX
MAXILIAN A. FARBMAN
EDWARD T. BECK
E. STEELE MCINTYRE

April 3, 1981

Mr. Ken Wangerud
Coordinator of Permits & Compliance
ARCO Coal Company
P.O. Box 5300
Denver, Colorado 80217

Dear Mr. Wangerud:

The Division of Oil, Gas and Mining has completed its Apparent Completeness Review for the Beaver Creek Coal Company's preparation and loadout facility know as C.V. Spur. The Division's comments are in recognition and addition to Office of Surface Mining's findings of a complete plan in terms of compliance with UMC 771-UMC 828.

The Division finds the following areas to be lacking in compliance information. It is the responsibility of the operator (applicant), to submit compliance information when changes in on-site structures, facilities or operations occur. The plans are to be submitted before construction or modifications occur and will be considered an addendum to the permanent regulatory mining permit.

UMC 771.25 Permit Fee

The Division has no record that the \$5.00 permit fee has been paid.

UMC 771.27 Verification of Application

The application does not contain a verification under oath by a responsible official of the applicant that the information contained in the application is true and correct to the best of the officials information and belief.

UMC 782.19 Identification of Other Licenses and Permits

The right-of-way permits obtained for:

1. the pipe which runs off the NE corner of the permit area to the Price River, and

Mr Ken Wangerud

April 3, 1981

Page Two

2. the 10 inch pipe running from the canal south of the permit area should be included in the permit application with the following information:

- a. Type of permit or license,
- b. Name and address of issuing authority,
- c. Identification numbers of applications for those permits or licenses or, if issued, the identification numbers of the permits or licenses; and
- d. If a decision has been made, the date of approval or disapproval by each issuing authority. All water right agreements should be included.

The Department of Health has granted conditional approval for the C.V. Spur plan. There are no requirements for a PSD permit.

UMC 782.21 Newspaper Advertisement and Proof of Publication.

A copy of the newspaper advertisement of the application and proof of publication of the advertisement shall be filed with the Division and made a part of the complete application not later than 4 weeks after the last date of publication required under UMC 786.11(a). Thus far the Division has no record of publication.

UMC 783.15 and UMC 783.16 Groundwater Information and Surface Water Information.

The quantity of hydrologic water quality and flow data submitted is not adequate to present accurate conclusions describing the impact of operations on hydrologic system(s) within the area. Commitment to the monitoring plan as outlined in Section 4.2-B.3, page 4-24 is acceptable as a minimum to justify the conclusions as presented in the Hydrologic Report.

Although the refuse disposal material has not presently been found to contain toxic or acid producing material, the presence of boron has not been satisfactorily determined and the occurrence of this element would adversely influence the reclamation of the refuse areas. Therefore the applicant needs to demonstrate the existence or non-existence of boron in sub and surface water flows by including this parameter in the baseline monitoring program.

UMC 783.19 Vegetation Information

The vegetation information is incomplete to the degree that it is difficult to evaluate compliance for reclamation. The applicant should provide the total number of acres to be disturbed of the 160 acre permit area. There is no map which explicitly depicts the 108.41 (or 110) acres of total planned disturbance. It is not clear whether the weed community will be disturbed and how much of the remaining shadscale community will be disturbed? Did a sedge meadow occur on the site in the past? Is it now drained by the french

Mr. Ken Wangerud
April 3, 1981
Page Three

drain on the west end of the permit area? Until these points are clarified it is difficult to approve only one reference area (shadscale community) for reclamation of the entire site. The vegetation information should explain what community and thus what reference area the already disturbed area is to be assigned.

UMC 783.25 Cross-Sections, Maps, and Plans.

The location, dimensions and cross-sections must be provided for the coal processing waste bank on the original truck dump. The applicant must demonstrate that compliance with UMC 817.81-UMC 817.88 will be achieved.

The location of the temporary garbage disposal area must be included in the surface facilities map.

Cross-sections must be provided for all refuse disposal areas upon final configuration.

UMC 784.11 Operation Plan: General Requirements.

Each application shall contain a description of the mining operations proposed to be conducted during the life of the mine within the proposed mine plan area including:

(b) A narrative explaining the construction, modification, use, maintenance and removal of the following facilities (unless retention of such facility is necessary for post-mining land use as specified in UMC 817.133).

(1) Dams, embankments and other impoundments.

The application states that there are no impoundments within the permit area yet 5 sedimentation ponds do exist which by definition are impoundments. The applicant should address them as such.

(2) Topsoil handling and storage areas.

The removal of the topsoil originally stockpiled near the pumphouse should be discussed. The recalculated volume of topsoil and subsoil which is stockpiled should be provided with maps and plans for contemporaneous reclamation.

(3) Coal removal and storage areas.

The removal of the previously used washed coal stockpile from the area just south of the original truck dump is a modification and should be addressed in terms of reclamation of the area.

(4) Coal processing waste, and non-coal waste removal, handling, storage, transportation and disposal areas and structures.

Mr. Ken Wangerud
April 3, 1981
Page Four

The coal processing waste disposal within the truck dump must be addressed and defined as a fill material or processing waste bank structure with technical considerations of slope stability and reclamation accounted for.

Temporary storage of non-coal refuse (garbage, oil, etc.) must be discussed with demonstration of compliance with UMC 817.89. A letter from the land fill accepting refuse from C.V. Spur should be included.

Are there oil and grease wastes? If so what method of disposal will be utilized?

Where will post-operation disposal of surface facility components such as concrete, gravel, etc. occur?

UMC 784.12 Operation Plan: Existing Structures.

(b) Each application shall contain a compliance plan for each existing structure proposed to be modified or reconstructed for use in connection with or to facilitate underground coal mining activities. The compliance plan shall include:

(1) Design specification for the modification or reconstruction of the coal stockpile and truck dump processing waste bank to meet the design and performance standards of UMC 817.81-UMC 817.88.

(2) A construction schedule which shows anticipated dates for beginning and completing interim steps and final reconstruction of these two areas.

Are there wastewater disposal facilities on the property? If so, describe and locate on facilities map.

UMC 784.13 Reclamation Plan: General Requirements.

(b)(1) A detailed timetable for the following needs to be submitted for the completion of each major step in both interim and final reclamation. Address the truck dump, Price River pipe system, and land beneath the coal stockpile which is currently being removed so that requirements of UMC 817.100-UMC 817.116 are met. Include:

(a) An estimate of the cost of reclamation of these areas.

(b) A plan for any necessary backfilling, soil stabilization, compacting or grading for these areas.

(c) A plan for redistribution of topsoil and subsoil on these areas. Which sections of soil stockpiles will be utilized for contemporaneous reclamation? How will reclaimed sections of the stockpiles be protected?

(5) A plan for revegetation for above mentioned areas including:

(i) Schedule of revegetation,

On-going reclamation of refuse disposal areas was mentioned then contradicted. Interim reclamation should be carried out where practical to provide slope stability, prevent spontaneous combustion and provide erosion control.

(ii) Species and amounts per acre of seeds and seedlings to be used,

(iii) Methods to be used in planting and seeding, and

(iv) Mulching techniques.

(vi) The post mining land-use has been proposed as fish and wildlife habitat by the applicant. Therefore, measures to determine the success of revegetation must be met according to the requirements of 817.116(iv), that is, 70% of the ground cover of the reference areas with 90% statistical confidence, and the requirements of 817.117(c), that is, stocking rates for shrubs must be 90% of the woody stem occurrence per acre present on the reference area. These revegetation plans should be discussed in the reclamation plan.

(vii) Demonstrate that the sediment removed from the sedimentation ponds, filter ponds and underground sump and placed upon the refuse areas is non-toxic and/or detrimental to re-establishment of post-mining vegetation. Is there a potential for uptake of toxic elements by plant roots? What effect might the high evapotranspiration rate have on pulling elements to the surface?

UMC 784.14 - Reclamation Plan: Protection of Hydrologic Balance.

(b)(1) How often are sedimentation ponds pumped out and filtered thru the lower filter pond (#6)? Potential problems exists if ponds have recently accepted a processing plant discharge, followed by a 10 year-24 hour design storm. (Sec. 4.4-B, pg. 4-33).

(3)(c) What is the potential impact to the runoff control facilities and to the surrounding area if the plant required an emergency discharge of processing wastes during a maximum design precipitation event?

UMC 784.15 Reclamation Plan: Post-Mining Land-Use.

What impact will returning the flow of groundwater to its "former drainage patterns" have upon the post-mining vegetation success? Will bogs or marshy areas develop on-site or off-site thereby limiting the extent of post-mining land-use? Is there a need to adjust the seed mix proposed? Where are best be the most probable locations for these areas to develop? (Section 4.2-C, page 4-27)

UMC 784.16 Reclamation Plan: Ponds, Impoundments, Banks, Dams, and Embankments.

a(1)(v) Each plan shall contain a certification statement which includes a schedule setting forth the dates when any detailed design plans for processed wastebank on truck dump and removed of coal stockpile will be submitted to the Division. The Division shall have approved, in writing, the detailed design plan for a structure before construction of the structure begins. Thus far, there have been no addendums submitted for the truck dump coal processing waste embankment or the modification of the coal storage area through removal of the washed coal stockpile.

Applicant should delineate watersheds for each of the five sedimentation ponds as well as the water treatment pond.

UMC 784.23 Operation Plan: Maps and Plans

Each application shall contain maps, plans and cross-sections of the proposed mine plan and adjacent areas as follows:

(b) The Division recommends that the following be shown for the proposed permit area on a new mine operations or surface facilities map and refuse disposal and soil stockpile map, plus any other maps necessary.

(2) The area of land to be affected within the proposed mine plan area. Include all current and predisturbed areas.

(5) Each topsoil, coal processing waste and non-coal refuse storage area.

(6) What is the extent of the "french-drain" system on the western edge of the permit area? There is a discrepancy between maps presented, which one is correct? (Figure #4, Ex.2 and 7)

(7) Each source of waste and waste disposal facility relating to coal processing must be shown including the processed waste disposal within the truck dump.

(8) Location of thickener overflow pond.

(10) Refuse haul road should stop at boundary to refuse area since this road is not consistently being used and could present a violation of the approved plan if portrayed as is. ~~as the permeability of the filter medium and the ~~is it possible to drain into the underground system?~~~~

(c) In reference to above, all maps, plans, and cross-sections must be out of prepared by, or under the direction of a registered professional engineer. system?

UMC 817.46 Hydrologic Balance: Sedimentation Ponds.

(b) Design calculations for a 10-year, 24-hour event for sediment storage in ponds contain a decimal error. (Section 4.4-B, page 4-35, E. The result implies undersized sedimentation ponds. Even without the sediment storage the capacity of each pond to hold the 10-year, 24-hour runoff, within the respective watersheds (page 4-35.G), cannot be calculated until a map and figures delineating watersheds for each pond is submitted.

Utilizing a total required capacity figure for 5 (or 6?) sedimentation ponds without delineating the watershed and runoff from each, does not present a complete picture of the working system. The application does provide each ponds capacity but not volume of runoff that will actually occur per individual watershed.

Check storage capacity calculations for each pond for the 10-year, 24-hour event. On page 34, total capacity for the ponds is stated to be 8.63 acre feet. Page 35 shows figures for pond volumes designed for a total capacity of 9.581 acre feet (Section 4.4-B, page 4-34 and 35). Which one is correct?

Is pond #6 in fact considered a sedimentation pond for some portion of the watershed? Delineate on watershed map. (Page 4-31 indicates it is an overflow structure but design calculations, page 4-35, indicate it is included for a sedimentation facility.

(h) When are the ponds determined to be at their maximum sediment storage capacity? What method is utilized to determine volume at 60% of design capacity. "Periodically" does not define how it is determined when sediment should be removed.

(i) Show formulas and references utilized in designing and presenting calculations for the following structures:

(1) Overflow culverts for all sedimentation ponds.

(2) Diversions as constructed (Section 4.4-B, page 35; Section 4.10, page 4-56).

UMC 817.49 Hydrologic Balance: Permanent and Temporary Impoundments.

In determining adequacy of filter pond #6 to handle the volume of runoff from the 10 year-24 hour event, was the permeability of the filter medium and the discharge capacity of the pipe draining into the underground sump taken into account? How readily can water pass through the filter media and out of this pond? In comparison, how rapidly will runoff enter this filter system? Are calculations available?

Mr. Ken Wangerud
April 3, 1981
Page Eight

UMC 817.85 Coal Processing Waste Banks: Construction Requirements.

(b) The operator has not submitted the calculations to support a 1.5 factor of safety for the refuse pile. The ultimate configuration of the pile should be used. If the configuration of the slope will ultimately change following reclamation then a second stability analysis should be performed. The applicant should include the following:

- (1) Certification,
- (2) Calculation method and results,
- (3) Safety factors for trial surfaces tried,

(4) The choice of parameters used in the calculation including; pore pressure of water, angle of internal friction, cohesion, specific weight, etc.

(5) The applicant should discuss how the pile will be maintained so that water affecting stability or other influences such as spontaneous combustion will be prevented from affecting stability,

(c)(2) Provide dimensions of area over which processed waste refuse will be spread to dry. What percentage water does processed waste contain at final stage of drying?

(d) The applicant must demonstrate that revegetation of processed waste disposal banks will meet UMC 817.111-817.117 utilizing 24 inches of sub and top soil rather than the 4 feet required. Will the new calculation of stored soil materials change the reclamation plan for these areas? What is the potential for erosion and subsequent exposure of the processed waste?

UMC 817.87 Coal Processing Waste: Burned Waste Utilization.

Before the Division will approve a plan for the disposition of burned refuse the applicant must describe areas which will be utilized to spread burning material. Provide maps as necessary.

Mr. Ken Wangerud
April 3, 1981
Page Nine

UMC 817.97 Protection of Fish, Wildlife and Related Environmental Values.

Provide a statement concerning electrical poles in regards to their being raptor proof.

Your expeditious response to these matters will greatly aid in the completion of the Division's review of the C.V. Spur permit application. Please contact the Division with any concerns on this review.

Sincerely,

JAMES W. SMITH, JR.
COORDINATOR OF MINED LAND RECLAMATION

JWS/te

cc: O.S.M.