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STATE OF UTAH  
NATURAL RESOURCES  
Oil, Gas & Mining

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July 2, 1986

CERTIFIED RETURN RECEIPT REQUESTED  
P402 459 379

Mr. Andrew C. King  
Genwal Coal Company  
P. O. Box 1201  
Huntington, Utah 84528

**FILE COPY**

Dear Mr. King:

Re: Deficiency Document, Mid-Term Permit Review, Crandall Canyon Mine, ACT/015/032, Folder No. 2, Emery County, Utah

The Division has reviewed information submitted by Genwal on June 10, 1986, in response to the Division's May 27, 1986, Determination of Completeness Review (as amended June 4, 1986).

While the submittal has addressed the majority of the Division's comments, there are still areas that are incomplete and/or technically deficient. The attached review document outlines information that is still required to be submitted by Genwal before the plan can be considered "complete and adequate."

Please contact me or Susan C. Linner of my staff if there are questions.

Sincerely,

A handwritten signature in cursive script that reads "Kenneth E. May".

Kenneth E. May  
Associate Director, Mining

SCL:jvb  
Enclosure  
cc: A. Klein  
L. Braxton  
S. Linner  
B Team

0849R

MID-TERM REVIEW

Genwal Coal Canyon Mine  
Crandall Canyon Mine  
Tract 1  
ACT/015/032  
Emery County, Utah

July 2, 1986

INCOMPLETE ITEMS

UMC 783.19 Vegetation Information - LK

The operator has stated the SCS will be contacted to assess range condition during the summer of 1986. This should be done early enough so that the assessment can be completed and forwarded to the Division for review no later than September 1, 1986.

UMC 783.21 Soil Resources Information - JSL

The applicant state that Plate 3-8 shows the relative location of the subsoil materials to the topsoil materials. Plate 3-8 does not identify the subsoil location relative to the topsoil stockpile location. These two materials must be identified.

UMC 783.24 Maps: General Requirements - JRH

- (c) The operator has provided a revised surface facilities map indicating the disturbed areas and their acreages. However, there is no map delineating the proposed topsoil storage areas for the site and indicating the disturbed acreage for these areas. The Operator is not complete with respect to this section.

UMC 783.25 Cross-Sections, Maps and Plans - DC

- (b) The operator must still submit a comprehensive map showing the location of all surface and ground water monitoring stations.

UMC 783.25 Cross Sections, Maps and Plans - JRH

- (i) Plate 3-1 does not include the topsoil storage pile locations on the drawing which are adjacent to the haul road. Plate 3-8 shows the details of the topsoil stockpiles but does not show the disturbed area or the permit area boundaries for the topsoil stockpile areas.

UMC 784.13 Reclamation Plan: General Requirements - RS

- (b)(1) The three maps requested depicting the reclamation phases are not complete nor technically adequate. The drainage system (including diversions (labeled), contributing watersheds, the sediment pond, berms, culverts and other drainage control devices) is not depicted on each map. This includes, but is not limited to depiction of berms along the road, lack of final channel designs for the ephemeral channel immediately to the west of the portals, and depiction of interim sediment control devices (i.e. silt fences along the perimeter of the site during construction and reclamation activities).

UMC 784.13 Reclamation Plan: General Requirements - LK

- (b)(5) Page III-24 states that the reclamation maps are plates 3-5 and 3-4. These plates show only where seed mix #1 and seed mix #2 will be used and the outslope of the sediment pond for the wooded area. While these plates have a table heading indicating areas of post construction seeding, they are not marked on the map. Plate 7-5 does show areas of post construction/temporary revegetation and should be referenced. Also the outslopes of the road and the road (and cut) between the sediment pond and the permit boundary sign are not shown on the map. It is suggested that all areas east of the road be seeded and planted with the wooded (riparian) seed plan.

Pages III-30 and III-33 refers to Plate 8-1 for map showing where each seed mix is to be used. This reference must be corrected to Plates 3-4 and 3-5.

Page III-31 refers to Plate 3-8 for areas of post construction contemporaneous reclamation. This reference should be referred to as Plate 7-5.

The response index indicated that mulching was addressed on page 3-33. Page III-33 does not address mulching. Page III-30 still lists several methods for anchoring straw mulch. Please provide specific plans on how Genwal intends to anchor straw mulch and, if more than one method will be used, show the area for each method on the reclamation map.

UMC 784.13 Reclamation Plan: General Requirements - JRH

- (b)(7) The operator has proposed to locate a permitted disposal site at the Sinbad Landfill. Since this area will require additional review, public notice and Federal approval, the operator shall be given conditional approval in the interim. Conditional approval shall require that the operator only store sediment pond waste material and other non-coal waste material in the designated temporary storage location at the mine site. Until the off-site disposal area is approved no permanent disposal of the material will be allowed. The Operator must also submit plans and seek approval for the permanent waste disposal area in accordance with the conditions of the approval.

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

The applicant has completely addressed this regulation in Appendix 7-6. It has not been technically reviewed at this stage of the review process.

UMC 784.18 Relocation or Use of Public Roads - JRH

The Division is still awaiting review and approval of the road modifications by the Forest Service.

UMC 784.23 Operation Plan: Maps and Plans - JRH

- (b)(3) The Operator will be required to submit a corrected map(s) to include the topsoil storage areas and the permanent waste disposal facilities.

TECHNICAL DEFICIENCIES

UMC 800 Bonding - JRH

The Operator must submit to the Division a complete and detailed cost estimate for the reclamation of the site. The detailed cost estimate shall include the following information:

1. Mass balance calculations for earthwork and topsoil distribution, quantities, equipment selection, productivity and cost estimates for all phases and aspects of the work required for reclamation.
2. Calculations for the reclamation work to be accomplished shall include references as to the source of the information used and the date or dollar year in which the estimates are based.
3. A map(s) to be used as Exhibit "A" of the surety bond which shows the disturbed area boundaries of all areas to be disturbed. This shall include the permanent waste disposal facilities and the topsoil stockpile storage locations. This map(s) must be certified correct to serve as a legal description of the disturbed areas for the reclamation bond.

UMC 817.24 Topsoil: Redistribution - JSL

On page 111-28 the applicant states that 0.6 feet of topsoil will be redistributed at the time of final reclamation and page 111-29 indicates 1.01 feet of topsoil will be redistributed. The Division approves the 1.01 feet redistribution depth - not 0.60 feet. Please amend.

UMC 817.41 Hydrologic Balance: General Requirements - DC/RS

A noncoal waste disposal area has been proposed, but has not been permitted or approved by State Health. To accomplish this approval, a 30-day public comment period will be required. Therefore, a stipulation will be required in order to grant Genwal a timely approval.

Also see comments under UMC 784.13.

UMC 817.43 Hydrologic Balance: Diversions and Conveyance of Overland Flow, Shallow Ground Water Flow and Ephemeral - DC

The operator must submit documentation for the high manning's n value (0.10) used in the exit velocity calculation for the flexible downspouts for diversions UD-1 and UD-3.

The operator must submit documentation or a justification for the high Manning's n value (0.04) used in the velocity calculations in diversions, UD-2, DD-1 through DD-6. Standard Manning's n values for excavated earth channels typically range from 0.018 to 0.025. The operator must use an n value that is representative of the channel lining for the diversion velocity calculations. Additionally, the operator must provide a channel lining design for all diversions that will have a velocity during the design discharge capable of eroding the channel. Note: The Division feels that velocities of 4-5 feet per second are capable of eroding an excavated earth channel and will require a channel lining.

The operator must submit a map of the permit area that shows the contributing sub-watersheds to each disturbed diversion.

The operator has included a typical culvert inlet on page 27 of Appendix 7-7. The operator must state which culverts will be installed with this typical inlet configuration.

UMC 817.46 Sedimentation Ponds - RS

- (i) The emergency spillway proposed will be acceptable (following technical review) if onsite inspection of the area verifies that previous (nor probable future) piping or erosion around the large rock fragments is evident and the design is reviewed and approved by the USFS.

This section is still not complete. An onsite visit will need to be conducted in conjunction with the USFS in order to determine compliance with this section.

- (s) The applicant must propose measures to insure compliance with this subsection. Reclamation measures for the sediment pond outslope must be described and the area of reclamation must be depicted on the plate labeled "runoff controls".

This section is not complete. The applicant must submit plans to restore the riparian community in the vicinity of the sediment pond and all other areas of the Crandall Creek channel that are impacted.

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

The operator must still state when the proposed ground and surface water monitoring programs will commence. The operator must sample the ground water monitoring station in June 1986 as proposed in the MRP.

UMC 817.57 Hydrologic Balance: Stream Buffer Zones - DC

The operator must still submit a sediment control plan for the construction activities of the new surface facilities.

UMC 817.71 Disposal of Excess Spoil and Underground  
Development Waste - JRH

The Operator shall submit to the Division a detailed set of plans for the location, installation, operation and reclamation of non-coal waste disposal facility to be included within the mine permit area and disturbed area boundaries. The Operator shall promptly review and respond to any deficiencies found by the Division in the plan. Upon completion of the 60 day public notice and review period required for the modification to the plan, the Operator shall have responded to all public and agency concerns regarding the plan and the modification shall be made complete and adequate within 30 days after the closing date of the public notice.

No permanent disposal of non-coal waste material, sediment pond waste, coal spoils, or coal processing waste shall be made by the Operator until such time as the above modifications are approved. The Operator shall store all such material within the temporary waste storage facilities as shown on Plate 3-1 of the MRP. This condition does not apply to trash and garbage or other such materials which are approved by the Division for disposal in the approved sanitary landfill.

UMC 817.103 Backfilling and Grading: Covering Coal and Acid- and  
Toxic-Forming Materials - JSL

The operator must submit official laboratory results of the coal material analyses. The acid-base potential (ABP) was determined to be -11 tons CaCO<sub>3</sub>/1000 tons. This material is classified as a acid forming material. The applicant has agreed to sample the soil material immediately under the coal stockpile at the time of final reclamation. However, the applicant must re-edit previous comments on pages VIII-4 Part 8.5 to indicate this material is a potentially acid-forming material.

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