



STATE OF UTAH
NATURAL RESOURCES
Oil, Gas & Mining

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July 25, 1985

EXPRESS MAIL (B76409248)
RETURN RECEIPT REQUESTED

Mr. Nathan Atwood
Co-Op Mining Company
P. O. Box 300
Huntington, Utah 84528

Dear Mr. Atwood:

RE: Deficiencies and Technical Concerns on the Co-Op Response
to the Draft Technical Analysis, Bear Canyon Mine,
ACT/015/025, #2, Emery County, Utah

The Division has completed its review of the material submitted by Co-Op on May 17 and June 18, 1985 in response to the Division's Draft Technical Analysis (TA) of April 15, 1985. Substantial problems exist with the material submitted which prevent the Division from proceeding with a Final TA. The problems are enumerated by regulation on the enclosed pages.

The review of the material submitted by Co-Op was extremely difficult and time consuming in that the technical review team had difficulty locating where the specific responses were contained in the Mining and Reclamation Plan (MRP). A copy of the TA with handwritten notes delivered by Mel Coonrod gave an indication as to the location of some of the responses. In the future, would you please assure that an accurate, formal index of where responses are located in the MRP accompanies Co-Op's response.

Of special concern to the Division are those portions of the MRP which were previously in compliance and are now out of compliance again based on the material submitted on May 17, 1985. If Co-Op desires to gain a permanent program permit for the Bear Canyon Mine, it is suggested that those areas in the MRP which are in compliance not be changed by Co-Op. The most expedient way to permit this mine is to change only those sections of the MRP which the Division notes as needing change based on official Division correspondence.

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Mr. Nathan Atwood
ACT/015/025
July 25, 1985

Based on the impending expiration of the interim permit for the Bear Canyon Mine, it is incumbent upon Co-Op to respond as quickly as possible in order for the Division to finalize the TA and hopefully, issue a permanent program permit for the Bear Canyon Mine. It is, therefore, requested that Co-Op respond to the attached items by August 23, 1985. Should you or your staff have any questions or would like to meet with the Division for clarification, please feel free to contact me or John Whitehead of my staff.

Sincerely,

Lowell P. Braxton

Lowell P. Braxton
Administrator
Mineral Resource Development
and Reclamation Program

JJW/btb
Enclosures
cc: Eldon Kingston
Mel Coonrod
Allen Klein
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9294R-42 & 43

DRAFT TECHNICAL ANALYSIS RESPONSE DEFICIENCIES

Co-Op Mining Company
Bear Canyon Mine
ACT/015/025, Emery County, Utah

July 25, 1985

UMC 782.13 Identification of Interest - JW ** New Item **

(a)(6) The resident agent for the Bear Canyon Mine has apparently changed. Updated information must be provided in the Mining and Reclamation Plan (MRP).

UMC 782.14 Compliance Information - JW

The request under this regulation of the Draft Technical Analysis (TA) for information, both Trail and Bear Canyon mines, which pertains to suspension and revocation of mining permits was not supplied by the applicant. This information must be supplied.

** New Item **

The MRP does not contain a current updated list of each Notice of Violation received by the applicant. This must be updated to reflect a current list of violations through July of 1985.

UMC 782.15 Right of Entry and Operation Information - JW

The information requested in the Draft TA of April 15, 1985 was not supplied by Co-Op. Information which completely addresses the request made in this section of the regulations of the Draft TA must be provided by Co-Op.

UMC 783.25 Cross Sections, Maps and Plans - JW ** New Item **

Page 2-10 and 2-11 of the MRP refers the reader to Plate 2-3. This plate could not be located in the MRP and should be supplied.

Additionally, the Division hereby requests that an updated Plate 3-4, Mine Workings Map, be submitted with the response to this letter.

UMC 805.11 Bond Estimate - PGL

The following bonding stipulations were not adequately addressed in the May 17, 1985 submittal:

- #1. All support facilities listed in the MRP (or missing in the MRP), but are on the permit area must be included in the cost estimate:

Scalehouse
Truck Loadout Extent (must include coal storage bins, etc.)
Magazines
Trailers

- #2. The updated equipment costs and references must be included in the MRP.
- #4. The cost of backfilling the portals must be included.
- #6. Monitoring costs including subsidence, vegetation, hydrologic and erosion costs must be detailed and included in the bond estimate.
- #7. An escalation factor of 3.79 percent for five years must be included as well as a 10 percent contingency factor in the reclamation cost estimate.
- #8. The baseball diamond reclamation costs must be detailed in the MRP.
- #10. The removal of the retaining wall adjacent to the portal access road must be detailed in the reclamation cost estimate, i.e., equipment needed, labor, etc.
- #11. The costs to remove solid wastes to an approved landfill (as described on page 3-91) must be included in the reclamation cost estimate.
- #12. The applicant must include detail of the cost of plugging boreholes with five feet of cement in the reclamation cost estimate, i.e., unit costs, labor, etc.
- #13. The applicant must include the cost of seeding or planting any disturbed area, as contemporaneously as practicable with the completion of backfilling and grading, with a temporary cover until a permanent cover is established in the reclamation cost estimate.

** New Items **

1. Extent of water system that will be removed must be reflected in the cost estimate.
2. Future reclamation does not offset bonding requirements (page 3-109).

3. Seedbed material and handling is missing from the cost estimate and must be included.

UMC 817.21-.25 Topsoil - EH

The soils section of the Mining and Reclamation Plan (MRP) is, in effect, in worse shape than before the inclusion of the May 17, 1985 material.

On January 11, 1985, the Division requested that Co-Op Mining Company replace all general comments used in the MRP. The January 11, 1985 letter from the Division noted:

"The applicant uses the word "suitable" many times throughout the topsoil redistribution plan; "suitable" depth, "suitable" time period. The term must be defined and the exact information placed into the text.

Phrases like "by using appropriate equipment running at a suitable depth," "will employ the necessary measures," "might" and "travel on the reclaimed area will be limited" need to have specific plans submitted. What is appropriate equipment running at a suitable depth?"

On February 13, 1985, Co-Op submitted information in Chapter 8 of the MRP that eliminated the general statements, but the general statements remained in Chapter 3 and elsewhere in the MRP, making the MRP contain contradicting statements.

In the Division's Draft Technical Analysis (TA), Co-Op Mining Company was required to eliminate these conflicting statements. The Draft TA reads as follows:

Compliance

The applicant is not in compliance at this time.

The applicant has presented several different methods throughout the MRP for removal, storage and redistribution of the topsoil material.

Chapter 3, pages 3-79, 3-83, 3-84, 3-85, 3-91A, 3-93, 3-94, 3-96 and Appendix 3-D all have statements that conflict with the latest submittal (Chapter 8, pages 22, 23, 24, February 2, 1985). The Chapter 8 proposals were used to prepare the applicant's proposal for the topsoil section of this TA.

Stipulation 817.21-.25-(1)-EH

Prior to permit approval:

1. The applicant must edit the MRP to include only one proposal to meet the requirements of UMC 817.21-.25.

On May 17, 1985, Co-Op responded to the stipulation on topsoil by removing the specific topsoil handling plan in Chapter 8, pages 22 and 23, with general statements as follows:

"Topsoil redistribution procedures will ensure an approximate uniform thickness consistent with the proposed reclamation plan. Topsoil will be redistributed at a time of the year suitable for establishment of permanent vegetation.

To minimize compaction of the topsoil following redistribution, travel on reclaimed areas will be limited. After topsoil has been applied, surface compaction will be reduced by using appropriate equipment running at a suitable depth. This operation will also help prepare a proper seed bed and protect the redistributed topsoil from wind and water erosion.

Co-Op Mining will exercise care to guard against erosion during and after application topsoil and will employ the necessary measures to ensure the stability of topsoil on graded slopes. The specific methods to be implemented will be defined in the attached Interim Plan. An example of the soil stabilization methodology that might be used includes the placement of crushed and heavier material at the toe of roadfill slopes, and the random placement of large rocks and boulders on the surface."

This was essentially the same language that had been removed from the MRP in the February 13, 1985 submittal.

As indicated earlier, the Division had required Co-Op to remove statements of a general nature. All references and descriptions to soils handling in Chapters 3 and 8 must be specific and consistent. Co-Op must include in the MRP a specific soil handling plan which is consistent and not contradictory with other sections of the MRP.

UMC 817.44 Stream Channel Diversions - TM

The applicant has responded in part to the stipulations noted in the Division's Draft TA of April 15, 1985. Cross sections and profiles associated with the reclamation of the stream channels found within the disturbed area have been provided. Placement of

riprap is shown on Plates 7-8 and 7-7. However, documentation and explanation in narrative form of why these channels are sized to the configuration shown on Plate 7-8 and why riprap will be placed in the area shown on Plate 7-7 is not provided. Details of riprap placement are not provided. Information such as filter blanket and riprap sizing calculations are needed to support this proposed restoration design. Justification is also needed as to why riprap was placed only in the lower end of the reclaimed ephemeral drainages and not elsewhere in the drainage. Justification also needs to be provided detailing why no filter blankets were proposed to be placed underneath the riprap.

The reclamation plan provided for the Bear Creek involves the use of log dams placed at 50 foot intervals in the reclaimed stream channel. There is no documentation of where this method has been successfully utilized in other areas. Further, the life span of a wooden structure in a reclaimed stream channel is limited. The Division does not concur with this technical proposal and suggests the applicant consider the use of rock riprap or rock check dams installed in the stream channel as a more permanent restoration measure. Additionally, the location of any structures to be used in the stream channel restoration must be shown clearly on Plate 7-7.

UMC 817.45 Sediment Control Measures - TM

The location of silt fence installations which are to be used in place of riprap in those areas where riprap will be covered by bank sloughing or where constant maintenance of road ditches is required must be shown on Plate 7-1.

The stabilization measures for road culvert inlets and outlets must be specified in the MRP. Some black corrugated plastic downspouts have been installed. All of these must be shown on Plate 7-1.

On page 51 of Section 7.0 in the MRP, the narrative is vague and references measures that "may" be used rather than exactly what will be used. The specific measures that will be installed must be included in the MRP to be enforceable.

Ditch D-3D is not accurately depicted on Plate 7-1. Unless Co-Op Mining intends to install this ditch upon permanent approval, it should be taken off Plate 7-1. Further, a culvert exists south of culvert C-2U which is not shown on Plate 7-1 and must be included.

UMC 817.46 Sediment Ponds - TM

Stipulation #2(A) under this regulation has not been addressed by the applicant. Co-Op must submit the final location for sediment pond B which clearly shows its proximity to Bear Creek. Additionally, the plans thus far submitted for pond B do not detail

how compliance will be achieved with UMC 817.46(p). This regulation requires a specified design for placing and spreading of fill material to achieve compaction and meet design permits of this section. This information must be provided.

UMC 817.47 Discharge Structures - TM

The applicant's latest submittal states on page 51 of the MRP that "Figure 7.2-6 is a cross section of a relatively simple corrugated metal energy dissipating device which can be used." This language is not acceptable because it is not enforceable. The MRP needs to reflect exactly what will be installed.

The MRP does not discuss or show culvert downspouts which are presently installed or will be installed in the future for dissipating energy. These must be shown. Additionally, the applicant must add a narrative committing to maintain or replace energy dissipating downspouts when necessary and to install others if downslope erosion becomes evident in places which are currently not protected.

UMC 817.50 Underground Mine Entry and Access Discharges - RVS

Stipulation #2 for this section was not addressed. Co-Op must respond completely to this stipulation.

UMC 817.54 Water Rights Replacement - TM

Stipulations #1, #2 and #3 of this regulation were not responded to. Co-Op must submit information which adequately responds to each of these three stipulations in order to finalize the TA for this regulation.

It should be noted that the Division has received unsigned copies of a water rights appropriation transfer request. These are not adequate to address any of the stipulations noted above.

UMC 817.61-.68 Use of Explosives - RVS

Stipulation #1 was not addressed for this regulation. Co-op must submit a surface blasting plan which specifically addresses the requirements of UMC 817.62, 817.65, 817.67 and 817.68.

UMC 817.95 Air Resources Protection - PGL

The response to this section of the Draft TA was in the form of an inspection report by the Division of Environmental Health (DEH). This is not what was requested in Stipulation UMC 817.95-(1)-PGL in the April 15, 1985 Draft TA.

Please submit either a follow-up letter from DEH confirming that compliance has been achieved with all of the December 20, 1983 DEH stipulations or an approval from DEH on the revised air pollution control plan submitted by Co-Op dated June 3, 1985 to the Bureau of Air Quality.

UMC 817.97 Protection of Fish, Wildlife and Related Environmental Values - SC

Stipulation #1 was not addressed. Please include in the MRP the commitment requested in this stipulation.

UMC 817.101 Backfilling and Grading: General Requirements - PGL

The Following Stipulations Were Not Addressed:

#3(e). Site-specific lithologic sections with descriptions and highwall design were not included.

#3(f). The relative proportion of sandstones and shales in the exposed highwalls were not clearly identified for each highwall.

#4. The illustration of recontouring on page 3-121 needs angles on the cut and fill for the road. On page 3-91A, the applicant states the approximate slope for backfilled areas will be 1v:0.33h rather than 1v:3h as previously proposed. This is extremely steep and unrealistic. A corrected accurate slope must be submitted. This information must be labeled on the illustration and be consistent with the narrative.

#5. The typical cross section of slope reclamation lacks legends or identification symbols, typical slope angles and scale. This must be provided.

#6. The change in topography during reclamation is not shown on Plate 3-2. How are appropriate cross sections included?

#7. Plate 3-2 has a "cat-track terrace" included on the legend. This is not mentioned in the MRP narrative. Page 3-91A refers to special ripping, but not "cat-track terrace." This must be clarified.

#8. This stipulation was not addressed in the MRP. The backfilling and grading associated in the breakout from the Hiawatha Seam must be described in the MRP.

#9. The methods for removing or isolating any materials that might be considered toxic from the backfill material were not described in the MRP.

Appendix 3-F now consists of a new stability analysis. The Dames & Moore analysis presently referred to throughout the MRP is missing. The Dames & Moore analysis is the basis for some of this section being in compliance. Please reinsert it into the MRP.

UMC 817.103 Backfilling and Grading: Covering Acid- and Toxic-forming Materials - EH

Stipulations #1 and #3 were not addressed. Please provide a response which completely addresses these stipulations contained in the April 15, 1985 Draft TA.

UMC 817.111-.117 Revegetation - SL

A revised seed mix (page 9-22, MRP) has been provided by the applicant in response to Stipulation #1. The revised list includes Trifolium melilotus officinalis. No such species exists. This discrepancy must be rectified with a corrected seed mix. Additionally, numerous misspellings occur in the seed mixture list on page 9-22. The applicant should verify the correct spelling on each species listed to assure no misunderstanding occurs.

Stipulation #3 has not been addressed. The MRP still doesn't contain a specific timing for planting of seedlings.

Stipulation #4 was partially addressed in the May 17, 1985 submittal. The MRP does commit to seeding as contemporaneously as possible, however, no interim seed mixture is provided in the MRP. An interim seed mixture must be added to the MRP.

Stipulation #5 was not addressed. Please provide a response which completely addresses this stipulation.

The applicant states that production will be measured using "a SCS (Soil Conservation Service) methodology" (page 3-104 of MRP). This still does not respond to Stipulation #6 of the MRP. A specific methodology must be included in the MRP to assess vegetative productivity during the bond release period. The SCS productivity estimates used to establish the reference area are not acceptable for revegetation success monitoring. Please consult the Division guidelines on this if a specific methodology is needed.

The response to Stipulation #7 is incomplete. The MRP states that monitoring will take place in year 3 following revegetation (page 3-103A, MRP) but there is no mention of any other monitoring dates. A specific schedule of monitoring throughout the 10-year bond liability period must be provided.

The applicant's proposed method for determining woody plant density as requested by Stipulation #8 is not complete. Page 3-104 should be modified to state that the reclaimed area will be sampled as well as the reference areas for woody plant density and success of the reclaimed area based on results from the reference area.

** New Item ** - JW

The revised page 3-101 of the MRP contains narrative which is obviously erroneous. The MRP states:

"Where success is apparent, as represented by achievement of 80 percent original cover during the 5-year period, monitoring will be immediately investigated to determine the possible failure cause(s) so that positive steps can be taken to establish the desired interim vegetation during the next seasonal opportunity."

This statement must be corrected or removed from the MRP.

UMC 817.121-.126 Subsidence Control - RVS

With the May 17, 1985 submittal, Appendix 3-5-8, the Renewable Resource Survey, has been removed from the MRP. Consequently, a portion of the MRP that was previously in compliance, is now determined not to be in compliance. The Renewable Resources Survey must be reincorporated into the MRP.

UMC 817.160-.166 Roads: Class II - PGL

The drainage design, culvert designs and cross sections were not included for the roads to sediment pond A, road to the coal preparation facility and the bathhouse road as requested in Stipulation #1. These roads were also not included on Plates 3-1 and 3-5. However, the MRP stated that they are on Plates 3-1 and 3-5 on page 3-5D (Appendix 3-G).

(A typographical error on page 3-5C [Appendix 3-G] notes the road is 430" long but should be 430' [feet] long.)

UMC 817.181 Support Facilities - PGL

Stipulation #1 requested all support facilities located on the permit area be included in the MRP. Plate 3-2 (Support Facilities) did not include all of the tanks or trailers located in the permit area. The caretaker dwelling was not included on the plate. The magazines for explosives were not on Plate 2-2 and are on site on the permit area. Plate 2-2 must include all legends on the map.

Plate 2-2 (Support Facilities) did not include the culvert on the upper road southwest of culvert C-2V. The energy dissipators are not shown on Plate 2-2, i.e., black plastic downspouts and energy dissipators.

The insert on Plate 2-2 depicts a shaded area noted as "mine area" which does not correspond with the disturbed area or the permit area. Please clarify what this insert is supposed to be depicting.

Page 3-64 states "to minimize habitat disturbance and loss, surface activity at the breakout and the ventilation shaft will be minimal. The proposed site is located at the mine portal at Trail Canyon, so no new disturbance will result. Construction will be scheduled to minimize conflict with deer and elk use periods." This surface facility description is confusing. The narrative continues and concludes that "Co-Op is committed to reclaim all disturbed land and remove all support facilities upon completion of mining to prevent damage to fish, wildlife and related environmental values."

The references to a breakout and ventilation shaft at the mine portal in Trail Canyon should be removed from the MRP if Co-Op desires to permit Bear Canyon in the near future. It is recommended that Co-Op submit a major revision to the Bear Canyon MRP which covers Trail Canyon. The Division will review such a revision after the Bear Canyon MRP is approved.

The electrical storage area is shown on Plate 2-2 but is not included on the list of surface facilities in the MRP. Please add the electrical storage area to the list of surface facilities.

The water supply system for the mine support facilities (i.e., bathhouse, coal water sprays, scalehouse, caretaker building, etc.) must be shown on Plate 2-2.

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