



STATE OF UTAH  
NATURAL RESOURCES  
Oil, Gas & Mining

Scott M. Matheson, Governor  
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4241 State Office Building • Salt Lake City, UT 84114 • 801-533-5771

June 21, 1984

Mr. Walter Mueller, Jr.  
Vice-President and General Manager  
Plateau Mining Company  
P. O. Drawer PMC  
Price, Utah 84501

ATTENTION: Mr. Ben Grimes

RE: Technical Deficiencies  
PMC Unit Train Loadout  
Proposal  
Star Point Mines  
ACT/007/006, #3 and #4  
Carbon County, Utah

Dear Mr. Mueller:

The Division has completed the in-depth technical review of the Mining and Reclamation Plan (MRP) revision application and found it to be technically incomplete. The following deficiencies must be addressed to enable the technical staff to develop a positive findings document. The findings document will justify and accompany a recommendation for approval of the revision.

The deficiencies are as follows:

WILDLIFE AND VEGETATION

UMC 783.19 Vegetation Information - LK

As per UMC 783.22(a)(2)(ii), the applicant must provide a statement of productivity (i.e., a letter from the Soil Conservation Service [SCS]) for those lands (and reference areas) affected by the proposed modification. The applicant must also provide a statement regarding the range condition of the reference areas.

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UMC 784.13 Reclamation Plan - LK

(b)(5)(II) Please provide criteria as per UMC 817.112 to justify the use of the four introduced species in the saltbush seed mixture (page 784-17). The seeding rate is low for most species and should be revised. Also, will the rate vary for drill versus broadcast seeding methods?

(iv) Please provide the type of mulch to be used and the rate of application.

(v) Are pest and/or disease control measures anticipated? If so, please describe them.

UMC 784.21 Fish and Wildlife Plan - LK

Please provide detailed plans for the design and implementation of the guzzler referred to on page 784-22.

BONDING

UMC 800.11-805.11 Bond Requirements - SS

The amount calculated by the applicant of \$409,631.00 is sufficient to cover reclamation of the unit train loadout modification. However, a 10 percent contingency must also be added, therefore:

\$409,631.00
X .10
<hr/>
\$ 40,963.00

Total Bond Amount = \$450,594.00

This amount (\$450,594.00) must be added to the original bond or a separate bond will need to be submitted to the Division.

There is a bond revision form attached to this document (MR-5a) which can be utilized by PMC to update the surety amount on file with the regulatory authorities.

TOPSOIL

UMC 817.22 Topsoil Removal - TLP

Data generated in Table 13 must be limited to numbered sample points on Map 10, 2 of 2, to afford delineation of the soil chemistry with depth. A stripping or isopach map showing the

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various removal depths must be provided. What method will be employed to convey stripping depths to equipment operators in the field?

Data on EC is presumed to be mmhos/cm @ 25°C. If so, considering its origin (being derived from Mancos shale), the numbers appear questionable. PMC must check the data and provide justification and/or repeat the sampling of the soil in question.

The Division accepts the notion that removal of topsoil is unsafe under the described conditions. Due to the SCS description of the soils having little or no development, the requirement for separate lifts is not applicable. However, the Division sees no reason to limit stripping to the depths proposed by the applicant in areas where removal is considered safe for equipment operators. New removal depths should be proposed for the "safe areas" along with the accompanying volumetrics.

#### HYDROLOGY

##### UMC 783.25 Cross-Sections, Maps and Plans - RS

The location for water quantity and quality sampling point 10-1 was not found on Map 4 as stated on page 783-10 of Volume 1 of the modification permit application. If an NPDES permit is to be obtained for the discharge at sediment pond No. 8, this point will also need to be depicted on that map.

##### UMC 784.14 Reclamation Plan: Protection Of Hydrologic Balance - RS

Page 784-25 of Volume 1 states "...the effluent limitation of UMC 817.42 and NPDES Permit UT-0023736 do not apply". The applicant should be aware that the limitations of 817.42 will apply for all discharges from areas disturbed by underground mining activities. This will include the area of the proposed modification.

Page 784-29 states that the discharge from pond 8 will meet the effluent limitation set forth in the NPDES permit referenced above. This suggests to the reviewer that that point will have an NPDES permit. These confusing points should be clarified and corrected in the application.

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

The applicant must state the frequency of inspection for the embankment of pond no. 8. How will estimates of the sediment accumulation in that pond be made (i.e. sediment markers)? It is

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the Division's opinion that a quantifiable method of measuring sediment accumulation be implemented. This should benefit both the operator and the Division by avoiding potential problems concerning when the sediment should be removed. How will sediment be removed and where will the sediment be disposed?

A more detailed timetable for removal of the sediment pond is required. Specifically, the pond must remain in place until the requirements of 817.46 (u) are met. The applicant should note that this section requires that the drainage entering the pond be sampled for effluent limitations. A sampling schedule and plan (including site access and reporting) for this postmining monitoring should be included.

UMC 784.24 Transportation Facilities - RS

Page 784-47 states that culverts will be installed at strategic discharge points along the proposed road. This implies that additional culverts other than those in natural channel drainageways will be installed "... as deemed necessary...". What will be the size and spacing for these road culverts? It is the Division's opinion that it is feasible during the planning stages to identify areas where culvert discharges will occur onto disturbed areas (i.e. fills) and that plans for dispersion structures for these areas should be developed and submitted. Similarly, the riprap and discharge points discussed on page 784-48 should be identified and sizing calculations submitted.

UMC 817.42 Hydrologic Balance: Water Quality Standards And Effluent Limitations - RS

Section (a)(3) of this regulation permits the Division to grant exemptions to the requirements of this regulation, if the area is small and if alternative sediment controls are proposed which will prove as effective as a sedimentation pond for the area in question. The outslope of the silo pad will require that an alternative measure be proposed before a small area exemption can be approved.

UMC 817.46 Hydrologic Balance: Sedimentation Ponds - RS

The following comments relate to the presentation made in Exhibit 2, Volume 1 of the application.

1. Chapter 10 of NEH-4 presents the procedure for determining the volume of direct runoff only. Methods and references for determining the peak flow rates should also be documented (i.e. Chap. 16 of NEH-4 and/or the Hittman calculator routines).

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The equation for determining peak rates appears to be in error.  
The applicant has shown:

$$Q_p = AQK/T_p$$

The correct equation should read

$$Q_p = 484AQ/T_p \quad (\text{Page 16.6 NEH-4})$$

2. Plans for the size and spacing of the proposed anti-seep collars to be installed on the outlet conduit must be submitted.
3. Plans for the splash basin proposed for the outlet works must be more detailed (i.e. size of basin, riprap size, maximum velocity calculations).
4. Engineering control during construction is discussed on page 4. What will be the criteria used for testing the compaction of the fill material, to be conducted by the qualified professional engineer?
5. The contour map of sediment pond (No. 8) which was used to construct Table 4 (Stage-Storage Data) should be submitted.
6. The peak flow for area No. 2 shows a discrepancy with that for ditch No. 14 (which are essentially the same areas). Table 8 shows the peak flow for that area to be 24.4 cfs. Table 7 reports the flow to be 62 cfs. The Division has calculated the flow to be 76 to 94 cfs (depending on hydrograph shape assumed). This calculation should be corrected and the proper adjustments in the culvert size proposed should be made.
7. The applicant is requested to document in more detail the method used for the flood routing developed in Table 6. The applicant should site the methodology used and present calculations for all required model inputs. Additionally, the applicant is requested to submit the complete inflow hydrograph developed from the Type II storm distribution as stated in the narrative.
8. Ditch 15 as shown on Map 6 should be extended to include all drainage from the channel immediately to the right of the permit boundary at the head of that ditch.
9. Plans for the new 15 inch downspout depicted on Map 4, 2 of 2, should be submitted. Will this downspout connect to pipe No. 1 or discharge into another diversion to be routed to that pipe? If it is not to be connected, plans for an energy dissipation structure should be submitted. If it is to be connected, calculations showing capacity to handle peak flow should be detailed (i.e., bend losses). This downspout should be depicted on Map 6, 1 of 2, as this map simply shows the diversion continuing to culvert No. 1.

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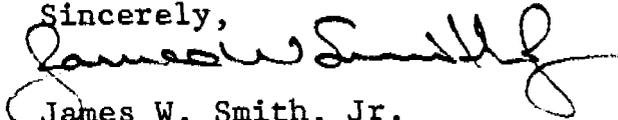
10. The applicant should address section (u) of this regulation with a detailed timetable for removal and a proposed monitoring schedule. See comments under UMC 784.16.

Once the Division is prepared to approve the application, written concurrence from the Office of Surface Mining (OSM) will be sought prior to the issuance of final approval to the operator.

Upon receipt of the requested information from Plateau Mining Company, the Division will complete the findings and forward its recommendation to the OSM. Provided the company's response is complete and accurate, it is anticipated that the final processing of the application by this office can be performed within a week to 10 days.

Should you have any questions, please feel free to call me or D. Wayne Hedberg of the technical staff. Thank you for your patience and continued cooperation.

Sincerely,



James W. Smith, Jr.  
Administrator  
Mineral Resource Development  
and Reclamation Program

JWS/dwh:btb

cc: Allen Klein, OSM  
Dave Maxwell, OSM  
Dianne Nielson, DOGM  
Ron Daniels, DOGM  
D. Wayne Hedberg, DOGM  
Tom Portle, DOGM  
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