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State of Utah

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

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April 28, 1992

Mr. Ken A. Kluksdahl
Mine Manager
Tenneco Minerals
P.O. Box 2650
St. George, Utah 84770

Dear Mr. Kluksdahl:

Re: Final Approval, Permit Amendment, Covington Pit & Haul Road Development, Tenneco Minerals Company, Goldstrike Mine, M/053/005, Washington County, Utah

The Division has completed its review of Tenneco Minerals latest deficiency response, received April 7, 1992, regarding the permit amendment application for the Covington Pit and Haul Road. The response adequately addresses the majority of our technical concerns. We are hereby granting final approval of this amendment allowing construction to commence in accordance with the minor requests/clarifications as outlined below.

Most of the following comments are provided principally as points of clarification, rather than as remaining deficiencies. Unless Tenneco has major disagreement or objections to these clarifications, the Division will assume Tenneco is receptive and in agreement with same. Our comments are formatted according to appropriate section of the Minerals rules in chronological order. Please format any necessary responses accordingly.

R647-4-107.2 & .3 Operational Practices (Drainages & Erosion Control) - DWH

The operator has committed to implement culverts under the haul road crossings for those drainages where peak 100-yr, 24-hr runoff will exceed 100 CFS. The operator proposes to utilize culverts sized to pass the 10-yr, 24-hr runoff volume due to the projected 3-4 years of remaining mine life. The Division will accept this proposal; however, due to the downsizing of the design storm, we request that trash racks be installed on these culverts to reduce the likelihood of plugging with storm debris under extreme runoff events. If larger culverts are ultimately emplaced, this requirement may not be necessary.

It is our understanding that the operator may be willing to upgrade these culverts to the 100-yr sizing, if the BLM and county accept a conceptual proposal to leave the new haul road as a permanent replacement for a lower existing section of the East Fork Beaver Dam Wash mine access/public road. We concur with this proposal and would hope that a decision can be reached with the BLM and county regarding post-mining maintenance and any required rights-of-way and/or special use clearances, before the smaller culverts are installed.

The operator has modified the plan regarding the use and placement of silt fences as a means of controlling erosion and minimizing offsite sediment contributions. The Division recommends that the silt fences not exceed 3 feet in height. We also suggest that small overflow keyways be cut into the top center portion of those fences where higher flows are anticipated. This should help reduce the potential for "end-runs" around the fences. We have witnessed this short-circuiting phenomenon at some of the existing silt fences in use at the mine.

R647-4-111.2 Reclamation Practices, Natural Stream Channels - DWH

The operator's latest response provides a surety estimate revision which outlines projected costs associated with haul road culvert removal and appropriate restoration of the associated natural drainage configurations. However, no provisions or commitments are made regarding the possible need for restoration of the natural drainages impacted by the low-flow crossings. As indicated in our March 9, 1992 review, we will delay our decision regarding acceptance of these structures under a permanent long-term scenario until mine closure. Mutual consent will be required from the BLM (and county??) for the long-term use of those low-flow crossings located on public lands.

The $2,000,000 reclamation surety will be adequate to cover any necessary adjustments to the surety estimate under the Covington Pit/haul road permit amendment. A copy of our revised reclamation surety estimate for the Goldstrike mine plan (including this amendment) is attached. In completing our ongoing review and approval of the related permit ***revision***, the Division will adjust the surety calculations accordingly to reflect anticipated costs under this "worst-case" scenario for removal of the low-flow crossings on public lands.

R647-4-111.3 Reclamation Practices, Erosion/Sediment Control - HWS

Page 71, section 6.5 - Drainage and Sediment Control, lacks a clear description on how the post-reclamation drainage patterns will be configured. We assume that the operational phase road ditches will be covered up by regrading upon reclamation and will no longer be functional. This should be clarified in the plan. This could be accomplished by modifying the Reclamation Treatment maps (GS-021 thru 023), to show the anticipated post-mining hydrologic drainage configurations. Also, the plan should state that the original drainage pathways will be re-established, or rerouted by permanent diversions, through the pits and road crossings, etc. The plan should state that sediment control will continue until ultimate surety release, instead of a three-year monitoring period as stated in your latest response. Please revise the text under section 6.5 to accommodate these clarifications.

R647-4-113 Surety - AAG

Page 84 of the surety section states the estimate covers the reclamation of 323 acres and that all but 48 acres of the total project disturbance would be reclaimed. Page 65 describes the project disturbance as 382 acres with 48 acres of pit highwalls being unreclaimed. Subtracting the highwall acreage from the 382 acres gives 334 acres of reclaimed area. Please explain this discrepancy (323 vs. 334)?

Thank you for your cooperation in completing this permitting action. Please contact me, or any of the Minerals staff members if we can answer any questions or concerns you may have regarding the content/requirements of this letter.

Sincerely,

D. Wayne Hedberg

D. Wayne Hedberg
Permit Supervisor
Minerals Regulatory Program

jb
Attachment
cc: Kiran Bhayani, DWQ
Elliott Lips, JBR
Debra Pietrzak, Dixie RA, BLM
Lowell Braxton, DOGM
M053005.1

RECLAMATION ESTIMATE DRAFT

Tenneco Minerals Company

Goldstrike Mine Washington County

M/053/005 last revision April 24, 1992

Prepared by Utah State Division of Oil, Gas & Mining

Reclamation Details

***Tenneco estimates & Division unit costs are used in this estimate

***Means Site Work Cost Data 1990 & Rental Rate Blue Book utilized

-Generator for decommission of heap leach (10 months)

-Decommission labor, reagents, supplies, vehicles, etc.(Tenneco estimate)

-Regrading leach pads, plant, ponds, Padre dump & road, 6000 ft Goldsil roa

-Ripping ponds to 24"; all roads, plant, crusher, & contractor sites to 12"

-Removing 7 culverts & hauling, dumping, spreading fill (Tenneco estimate)

-Partial backfilling of Padre & Moosehead pits (to be non-impounding)

-Removal of low-flow crossings & re-establish channels (100 yr, 24 hr event)

-Hauling & placing topsoil by scrapers, dozers, & water truck

-Seeding, mulching, crimping, fertilizing or hydroseeding (Tenneco estimate)

-Construction supervision during reclamation (Tenneco estimate)

-Total disturbed area = 382 acres??, Reclaimed area 323 acres???

Description	Amount		$/Unit	Cost-$
Generator (Decommission)	10	mo	750	7,500
Labor (Decommission)	Tenneco Estimate			348,200
Miscellaneous (Decommission)	10.0	mo	6000	60,000
Regrading	1,770	hr	195	345,150
Ripping	107.3	hr	191	20,494
Culvert Removal 7	Tenneco Estimate			71,700
Pit Backfill (Padre & Moosehead)	600,000	ton	0.333	199,800
Removal of low-flow crossings	6	each	800	4,800
Topsoiling (Tenneco)	547	hr	686	375,242
Revegetation	Tenneco Estimate			184,200
Highwall Fence (Tenneco)	2,150	ft	3.67	7,891
Miscellaneous	Tenneco Estimate			3,900
Supervision	Tenneco Estimate			44,500
	SUBTOTAL			1,673,377
	+ 10% CONTINGENCY			167,338
	SUBTOTAL			1,840,714
	+ 5 yr ESCALATION(1.27%)			119,892
	TOTAL			1,960,607
ROUNDED TOTAL IN 1997-$				$1,961,000
Average cost per acre =	$6,071	per acre		

SHOULD BE 39,000