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STATE OF UTAH  
NATURAL RESOURCES  
Oil, Gas & Mining

ACT/007/001  
Norman H. Bangerter, Governor  
Dee C. Hansen, Executive Director  
Dianne R. Nielson, Ph.D., Division Director

355 W. North Temple • 3 Triad Center • Suite 350 • Salt Lake City, UT 84180-1203 • 801-538-5340

March 3, 1987

Mr. Trevor Whiteside  
Valley Camp of Utah, Inc.  
Scotfield Route  
Helper, Utah 84526

*Trevor*  
Dear Mr. Whiteside:

Re: Mid-Permit Term Review, Belina Complex, ACT/007/001,  
Folder No. 2, Carbon County, Utah

The Division has reviewed the Mining and Reclamation Plan (MRP) for the Belina Complex, including the updated sections provided January 22, 1987, as per the Mid-Permit Term Review policy. Portions of the MRP have been identified which will require further updating or technical information, as detailed in the attached review document.

In addition to providing a response to the review questions it is requested that Valley Camp provide upon resubmittal an updated regulation by regulation cross reference which will cover all sections of all six volumes of the MRP.

It is requested that a response to this review be provided no later than April 10, 1987. Feel free to contact me or Susan Linner if we can provide any assistance.

Sincerely,

L. P. Braxton  
Administrator  
Mineral Resource Development  
and Reclamation Program

jvb  
cc: A. Klein  
B Team  
0028R-28

Mid Permit Term Review  
Valley Camp of Utah, Inc.  
Belina Complex  
ACT/007/001  
Carbon County, Utah

March 3, 1987

Condition No. One - RPS

Water monitoring: Current guidelines require monitoring for the operational parameter list on a quarterly basis. The applicant's current monitoring schedule consists of monthly sampling during summer months for an abbreviated parameter list and a biannual sample for a more complete list. The applicant must add the following parameters to both sampling lists: dissolved oxygen, settleable solids, and acidity. In addition, two of the monthly samples need to have the following parameters added to the list such that they will conform to the operational parameter list and will qualify as a quarterly sample: total hardness, iron, and total manganese. The applicant must commit to quarterly samples for all perennial streams with one sample each at high and low flows.

The applicant's response to Condition #1 (October 2, 1984) proposed to modify the spring depletion curves based upon the first full year of data collection and submit these modified curves with the first annual report. The report on file with the Division does not contain the curves. The applicant should submit these curves in order to complete the actions required by Condition #1. Additionally, the applicant should submit a copy of Figure 1 referenced in the response to this condition.

Condition No. Five - JSL

Because the waiver (submitted Oct. 02, 1986) to Condition No. five was unacceptable to OSM, condition five and six must still be addressed. Specific information pertaining to the two sources of topsoil substitute material, including location and extent of source area, analysis, and volume calculations have been provided by the applicant. However, the applicant must provide more detailed information on the location and depth of substitute topsoil redistribution.

As stated in the Jan. 28, 1986 DOGM letter to Valley Camp, the operator must sample the perimeter of the coal piles on the Utah #2 pad. The MRP operation plan stated that the coal contaminated materials would be scraped off the pads - thereby uncovering the potential substitute topsoil. However, the depth of waste excavation has never been quantified. Analysis of the material near

the perimeter of the coal piles will establish the thickness of material to be removed. The material should be sampled at six inch intervals for the first two feet and the next two samples taken at one foot intervals to a total depth of four feet. The analysis must include: organic matter, calcium, sodium, magnesium, sodium adsorption ratio, pH, electrical conductivity, and acid-base potential. This sampling must be completed by May 31, 1987. When the depth of waste material to be removed is quantified, a determination as to how much material will be available for reclamation, how much and what kind of material should be used in the test plots, and any special handling techniques that will be required, can be made by Valley Camp.

The depth of substitute topsoil required for redistribution is dependent upon the outcome of Condition No. six. At such time that a redistribution depth has been established through the demonstration for final reclamation feasibility, the applicant must submit a substitute topsoil mass balance table. This table would be in a credit-debit format. The table must identify the substitute topsoil: origin, final reclamation destination, and the associated volumes (cubic yards).

#### Condition No. Six - LK

This condition has not been addressed to the satisfaction of OSM. An onsite meeting with OSM, Valley Camp and the Division will be held this spring when weather and site condition permit to determine what is still needed to resolve this issue.

#### Condition No. Nine - Belina Haul Road Design - JRH

The operator has submitted a reclamation plan for the Belina Haul Road which was received by the Division on January 22, 1987. The submittal consists of a report prepared by Morrison-Knudsen Engineers, Inc. as consultant for the operator.

With regard to the geotechnical investigation provided by the consultant, several stability problems are in evidence. Stability design factor of safety for Class I Roads required by the regulations is 1.25. The consultant's report indicates that based on an average section for the haul road, a factor of safety of 0.908 exists. Based on the natural conditions of the area with non-cohesive materials lying at or near their angle of repose, the factor of safety determined by the consultant appears to be reasonable. Natural talus slopes in the region have a factor of safety equal to 1.0 for their given geometry.

The reclamation design for the haul road indicates a factor of safety of 1.08 which is greater than the natural talus slopes in the area.

Existing conditions indicate that the road design is not stable and not in accordance with the requirements of the regulations. Post-reclamation conditions do not meet the long-term stability requirements as intended in the regulations. It is evident from the information submitted by the consultant that the operator cannot achieve the requirements of the regulations.

In order for the Division to approve the reclamation plan for the haul road and to allow continued use of the haul road a variance must be granted to the requirements of UMC 817.152(d)(9). The Division will grant such a variance if Valley Camp commits to take mitigating measures as outlined in the following variance. Valley Camp must commit to and implement these mitigation measures upon completion of this Mid Permit Term Review.

UMC 817.153 - .157 Variance - JRH

The Belina Haul Road has or potentially has hazards associated with the stability of the materials above, beneath and below the road which may cause slope failure, road failure, road blockage, mass wastage or other such effects to and around the haul road. The operator shall take adequate measures in the operation and reclamation of the Belina Haul Road such that the hazards which currently and potentially exist are made known to the extent that public and operator safety is maximized, and to the extent possible, that environmental damage caused by such hazards or mitigation of such hazards is minimized. As a minimum, the operator shall provide for and commit to the following:

1. Warning signs shall be placed at the entrance to the road indicating the potential for landslides and road surface failure.
2. Instrumentation shall be installed in critical areas which can be monitored by the operator and the Division in order to identify any movement within these areas or to anticipate failures. Such instrumentation may consist of stake rows across the potential slide areas, extensometers, tilt meters, or other such applications as may be approved by the Division.
3. Monitoring of critical areas by the operator shall occur at least monthly and more frequently as required during high ground moisture periods or during periods of movement in those slide areas. A monitoring plan and map showing the location of monitoring stations shall be submitted by the operator for approval by the Division.

4. In the event that a slide occurs or that failure in an area is imminent, the operator shall cease use of the Belina Haul Road and comply with any requirements of the Division as per UMC 817.99. Reactivation of the haul road for its intended use shall require approval by the Division.

Condition No. Nine - JSL

The total depth of fill material overlying the asphalt/concrete rubble has never been established. Please specify the depth of soil redistribution.

The Division has not approved any substitute topsoil material as referred to under section 4.4. The determination of substitute materials will be made through the satisfaction of conditions number five and six.

A chemical and physical analysis must be provided to establish the capability of the fill material. The parameters for analysis are listed in section 4.4. The applicant has stated that the analysis would be run just prior to final reclamation. This is not acceptable. The parameters must be analyzed now to assess the capability of the fill material for revegetation. The depth of topsoil redistribution is dependent upon the outcome of Condition Nos. five and six. Therefore, the satisfaction of Conditions five and six are a prerequisite to the final review of this response.

Condition No. Nine - RPS

The Belina Haul Road Reclamation Plan submitted on January 22, 1987 is not approvable at this time. The submittal is currently undergoing a technical analysis of the hydrologic designs. Comments and deficiencies found to date will be verbally discussed with the applicant on March 6, 1987. A complete review will be forwarded to the operator following this discussion and finalization of the technical analysis.

UMC 771.23 Permit Applications - General Requirements For Format and Contents - JSL

The MRP is not presented in a clear and concise manner. The MRP consist of six volumes. Four volumes are the original MRP and Maps, while the last two volumes address previous ACR and TA review comments. Most of the information in Volume V and VI should replace the outdated information in the first three volumes. The following is a list of items and inconsistencies to be updated and clearly presented:

1. Volume III, section 784.13 and Volume V section 784.13 must be updated to reflect the content of section 784.13(b) (4) of Volume VI.

2. Volume V, section 785.19 must be changed to 784.19. This section contends with underground development waste, not alluvial valley floors.
3. Volume V, section 784.13 Belina Haul Road Reclamation Plan pages 5 and 5a must be updated to include the current topsoil stockpile at Valley Camp.
4. Volume VI, section Maps must be changed to appendix P.
5. Volume VI, clarify last page of section 783.21. The text suddenly stops without further reference.

UMC 771.27 Verification of Application - HWS

The MRP must contain a verification statement by the operator that everything is true and correct to the best of the signing official's information and belief.

UMC 782.13 Identification of Interests - HWS, DL, SCL

- (a) Information found in Volume I, Section 782.13, Figures 1-4 and 1-5 should be updated to reflect current landowners in and adjacent to the operator's permitted area.

In this section (p. 10, paragraph 1) the operator speaks of two permit numbers ACT/007/014 and ACT/007/001. It should be mentioned in this section that the operation now functions under one ACT No., ACT/007/001.

- (a)(2) On map A "Surface Ownership" there is no legend to identify the different types of lines used on the MRP and the permit area boundary is not clearly delineated.

The permit area boundary must be clearly delineated on Map A-1 "Valley Camp Coal Properties." Map A-1 does not show the ownership of all contiguous coal leases as required by this section. This must be revised to be consistent with Figure 1-5. Figure 1-5 shows the U. S. Forest Service as a coal owner. This is incorrect as the BLM owns all Federal Coal.

- (b)(3) The applicant must provide names under which Valley Camp Coal Company and Quaker State Oil Corporation previously operated underground or surface coal mining activities in the United States within the five years preceding the date of application.
- (c) Principals and officers of Quaker State Oil Corporation should be listed.

(e) Table 1-4 does not list an address for Brent Bowden.

(f) Page 11 should show updated MSHA i.d. number for the Utah No. 2 Mine.

UMC 782.14 Compliance Information - SCL

(c) p. 16-18 does not describe N84-7-2-10, #2 of 10 and #3 of 10.

UMC 782.18 Personal Injury and Property Damage Insurance Information - HWS

The operator needs to update the information, in the permit concerning liability insurance. A certificate indicating current coverage needs to be placed into this section of the permit.

UMC 782.19 Other Licenses and Permits - HWS, SCL

(d) Information relative to this section found in Volume I section 782.19 Figure 1-7, needs to be updated using current approved dates for the listed licenses and permits.

Figure ACR-5, Figure 1-7, Volume V, should replace Figure 1-7, Volume I.

UMC 782.21 Newspaper Advertisement and Proof of Publication - SCL

Proof of publication should be inserted under this section, Volume I.

UMC 783.19 Vegetation Information - LK

When the vegetation reference areas were established in 1980, cover by species data was collected to describe the various community types rather than total cover. While this data is valuable to determine community diversity, it does not provide a revegetation standard for cover since the values reported for each species often add up to over 100 % cover (due to overlapping). Therefore, it will be necessary to evaluate all reference areas for total vegetation cover during the next sampling season (late July through August 15, 1987). A report which summarizes the data, including sampling methodology, sample size, standard deviation, etc., must be submitted for review & approval by September 30, 1987.

UMC 784.13 Revegetation - LK

(b)(5)(ii) The proposed seeding rates for the three seed mixtures are low for broadcast seeding. With the following changes, these seed mixes would be acceptable and in line with current seeding technology.

SW Facing Aspect Seed Mix

Increase: Bromus marginatus to 4.0 lbs PLS/Acre,  
Poa canbyi to 0.5 lbs PLS/Acre  
Add: Linum lewisii-blue flax at 1.0 lbs PLS/Acre.

NE Facing Aspects Seed Mix

Increase: Bromus marginatus to 5.0 lbs PLS/Acre  
Poa pratensis to 0.25 lbs PLS/Acre  
Agropyron smithii to 4.0 lbs PLS/Acre  
Poa canbyi to 0.4 lbs PLS/Acre

Utah #2 Area Seed Mix

Increase: Bromus marginatus to 5.0 lbs PLS/Acre  
Poa pratensis to 0.2 lbs PLS/Acre  
Add: Linum lewisii-Blue flax 1.0 lbs PLS/Acre  
Decrease: Artemisia tridentata vaseyana to 0.1 lbs PLS/Acre

Finally, Artemisia ludoviciana - Prairie sage, is a forb, not a shrub as listed on the SW Facing Aspects and the Utah #2 Area Seed mixes.

All supplemental plantings (handsets) are acceptable as proposed.

UMC 800 Bonding - JRH

The Mine Plan Decision Document as presented by OSM requires bond in the amount of \$1,521,000.00. This amount was posted by the operator and approved by the Board of Oil, Gas and Mining on August 23, 1984. The cost estimate provided by the operator and the determination of the bond amount was made in 1983 dollars. No factor was provided for escalation of the bond amount. The Division's policy for determination of the bond amount requires that an escalation factor be built into the cost estimate; further, information provided by the operator and by OSM in determining the reclamation cost estimate is not considered adequate by the Division.

To remedy deficiencies in the bonding caluculations and the bond itself Valley Camp must supply the following information:

The operator shall be required to submit an up-to-date reclamation cost estimate utilizing the updated bonding regulations and the Division's bonding guidelines. Copies of both the revised bonding rules and the bonding guidelines are included with this review document. Upon completion of the cost estimate by the operator, including the appropriate escalation factor, the Division shall determine if sufficient bond is currently posted by the operator.

The revised cost estimate shall include an updated map showing the existing surface facilities, the affected area(s) and corresponding reclamation treatments for their respective areas. This map could also be used as a description for the disturbed area as required as Exhibit "A" of the bond, which is not currently on file. Alternatively Exhibit "A" can be a legal description of the disturbed area (meets and bounds description).

Additionally, the Division currently has on file, two additional bonds for the mine site. The first is a Board contract in the amount of \$16,000, written in 1979 and the second is a surety bond in the amount of \$190,000, written in 1983. In as much as the total bond amount required by the operator was determined to be \$1,521,000 as stated above, these additional bonds may be extraneous and may need to be withdrawn.

In the event that the bond amount required by the Division is greater than the amount currently posted by the operator, the Division shall require the operator to increase the amount of bond. In the event that the amount of bond required by the Division is less than or equal to the amount posted by the operator, the operator may choose to reduce the amount to that required by the Division.

UMC 817.11 Signs and Markers - HWS

- (d) Information found in Volume II, Section 784.11 concerning signs and markers needs to be updated. Language describing the location and appearance of perimeter markers and buffer zone signs needs to be updated to reflect their current employment on the mining properties. Language should also be added to include the use of topsoil markers which are now being employed at the Belina site.

UMC 817.23 Topsoil: Storage - HWS

- (b) Information concerning the operator's topsoil stockpiling needs to be updated. The material now stored above the Belina portals should be quantified, and an explanation of its origin should be made. Also a description of the measures taken to protect the stockpile should be made. The operator should specify an approved seed mixture to be used in stabilizing the topsoil stockpile, and a brief explanation of other measures to be employed in stockpile protection needs to be made, e. g. berms and ditches.

UMC 817.23 Topsoil: Storage - JSL

On page 27, section 784.13 of Volume III the applicant commits to the preservation of topsoil materials only if the material would not be used for longer than one year. The time period prior to the implementation of preservation techniques is unacceptable. The soil must be protected at all times. Furthermore, the MRP does not contain sufficient preservation technique information. The MRP must address measures that will be employed to achieve topsoil stockpile protection. The measures must include plans, cross-sections, design and maps of the following:

- 1) Drainage diversions
- 2) Earthen berms
- 3) Topsoil stockpile dimensions (include volume and maximum slope. Depth and slope must be minimized to the greatest extent practicable to ensure against an anaerobic soil environment)
- 4) Mulch (type and rate)
- 5) Biological stabilization (Include rate and mixture. Leguminous vegetation is recommended to enhance soil fertility. The seed mixture should complement postmining reclamation seed mix. Refer to revegetation guidelines.)
- 6) Fertilizer/Amendments (Incorporation of an organic material)
- 7) Contour furrowing, if appropriate
- 8) Compaction Mitigation

UMC 817.25 Topsoil: Nutrients and Soil Amendments - JSL

In appendix M, Volume VI, p. 4 states that the fertilizer will be incorporated in the mulch slurry. The Division deems this particular fertilization technique unacceptable due to high potential of salt burn to the seedlings. Fertilizer should be broadcast in a granular form, or immediately incorporated into the soil if in a liquid form.

The MRP must also update the potassium fertilizer recommendation to read K<sub>2</sub>O not K<sub>2</sub>O<sub>5</sub>.

UMC 817.45 Hydrologic Balance: Sediment Control Measures - HWS

- (f) The operator should consider adding to the MRP language regarding sediment controls at the base of the Belina haul road (at approximately PI. 82+78.60 as depicted on the current haul road as-builts map T-1, sheet P-7). Currently the operator maintains three tiers of strawbales to control sediment draining off the haul road from approximately PI. 76+46.96 to PI. 82+78.60.

UMC 817.46 Hydrologic Balance: Sediment Ponds - RPS

Due to incomplete cleaning and a modification to the spillway system at sediment pond # 004, the overall capacity of the pond was found to be deficient by 0.11 acre-feet. In order to correct this situation, the applicant would be required to lower the decant less than two inches or raise the primary spillway (see submittal dated November 18, 1987).

The Division feels this action is unnecessary since the pond currently has adequate volume for the total predicated runoff volume. The pond is deficient in sediment storage volume by 0.11 AF. This will not affect the performance of the pond as the applicant has committed to cleaning the pond at the 60 percent sediment level. This deficient volume can be remedied during the next sediment cleaning.

UMC 817.46 Hydrologic Balance: Sediment Ponds - HWS

The operator was given approval, in October of 1986, for the installation of a 6" abandoned mine water bypass line. Although the operator did provide an updated schematic of pond #5, language in the permit needs to include this new line in association with pond #5. It needs to be specified that this line shares the same discharge location as pond #5, and a description of the origin of discharge material needs to be made.

UMC 817.71 Disposal of Excess Spoil and Underground Development Waste: General Requirements - JSL

The MRP alludes to a disposal site for sediment pond waste on the Operations Map, Map C, Plate D5-0042 submitted 1/22/87. However, the Division is unclear as to whether this is a current proposed modification or if it is a modification to be proposed in the next five year permit term. If the sediment pond disposal area is to be proposed in the next five year permit term, the applicant must identify the proposed sediment pond waste disposal area as proposed. If the applicant is proposing this waste site at this time, regulation UMC 817.71 must be addressed in its entirety.

UMC 817.89 Disposal of Non-Coal Waste - HWS

- (a) The operator needs to provide specific plans for disposal of non-coal wastes, as described in this section, e.g.: oil and grease, garbage, flammable, abandoned equipment, etc. Also the operator needs to specify any temporary storage facilities that will be used on site for these waste materials.

- (b) If the operator is having waste materials removed to a specific landfill, the landfill must be approved by State Health for the disposal of such materials. The operator should specify, in the MRP, the landfill being used and the type of material being taken to it.

The operator needs to identify any toxic or hazardous waste materials generated on site and specify the method of disposal or storage to be used for such material.

UMC 817.106 Regrading and Stabilizing of Rills and Gullies - JSL

The applicant must commit to regrade, stabilize, and revegetate all rills and gullies greater than nine inches deep.

UMC 817.150-.156 Class I Roads - HWS

UMC 817.160-.166 Class II Roads - HWS

UMC 817.170-.176 Class III Roads - HWS

Vol. III, p. 92 contains a brief narrative on roads found on the operator's property. However, the operator needs to classify each road operated within the permit area and specify its location. Also the operator needs to provide the required information, as specified by this section, showing that each road is in compliance with its designated classification: I, II, or III.

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