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UtahAmerican Energy Inc.

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RECEIVED

MAR 10 2000

DIVISION OF
OIL, GAS AND MINING

March 10, 2000

Pam Grubaugh-Littig
Permit Supervisor
DOGM
1594 West North Temple, Suite 1210
Salt Lake, Utah 84114-5801

Copy Have
ACT/007/013
Incoming
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Subject: Response to TA#3

Dear Ms. Grubaugh-Littig

Pam please find enclosed a copy of a complete redline of the Lila Canyon significant revision. And in addition I have included a copy of just the redline, changed pages. These copies are to assist in review only and are not intended to be posted into the MRP.

I have included the summary of the deficiencies with the response with this letter with a copy being included in both the complete redline binder and the redline only binder.

It is understood that once the significant revision has been approved by the Division that complete clean copies of the total Lila revision including appendices will be submitted to the Division.

A copy of the BLM R2P2 was submitted previously on 22 February 2000 to Dave Darby.

If you need any additional information please give me a call.

Sincerely,



R. Jay Marshall P.E.
Chief Engineer

APPLICATION FOR PERMIT PROCESSING

Permit Change
 New Permit
 Renewal
 Transfer
 Exploration
 Bond Release

Permit Number: ACT/007/013

Title of Proposal: Third TA response

Mine: Lila Canyon Significant Revision

Permittee: UtahAmerican Energy, Inc.

Description, include reason for application and timing required to implement:

Instructions: If you answer yes to any of the first 8 questions (gray), submit the application to the Salt Lake Office. Otherwise, you may submit it to your reclamation

- | | | |
|---|--|--|
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 1. Change in the size of the Permit Area? _____ acres Disturbed Area? _____ acres <input type="checkbox"/> increase <input type="checkbox"/> decrease. |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 2. Is the application submitted as a result of a Division Order? DO # |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 3. Does application include operations outside a previously identified Cumulative Hydrologic Impact Area? |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 4. Does application include operations in hydrologic basins other than as currently approved? |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 5. Does application result from cancellation, reduction or increase of insurance or reclamation bond? |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | 6. Does the application require or include public notice/publication? |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 7. Does the application require or include ownership, control, right-of-entry, or compliance information? |
| <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | 8. Is proposed activity within 100 feet of a public road or cemetery or 300 feet of an occupied dwelling? |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 9. Is the application submitted as a result of a Violation? NOV # |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 10. Is the application submitted as a result of other laws or regulations or policies? Explain: |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 11. Does the application affect the surface landowner or change the post mining land use? |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 12. Does the application require or include underground design or mine sequence and timing? (Modification of R2P2?) |
| <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | 13. Does the application require or include collection and reporting of any baseline information? |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 14. Could the application have any effect on wildlife or vegetation outside the current disturbed area? |
| <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | 15. Does application require or include soil removal, storage or placement? |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 16. Does the application require or include vegetation monitoring, removal or revegetation activities? |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 17. Does the application require or include construction, modification, or removal of surface facilities? |
| <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | 18. Does the application require or include water monitoring, sediment or drainage control measures? |
| <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | 19. Does the application require or include certified designs, maps, or calculations? |
| <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | 20. Does the application require or include subsidence control or monitoring? |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 21. Have reclamation costs for bonding been provided for? |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 22. Does application involve a perennial stream, a stream buffer zone or discharges to a stream? |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 23. Does the application affect permits issued by other agencies or permits issued to other entities? |

Attach complete copies of the application.

I hereby certify that I am a responsible official of the applicant and that the information contained in this application is true and correct to the best of my information and belief in all respects with the laws of Utah in reference to commitments, undertakings, and obligations, herein.

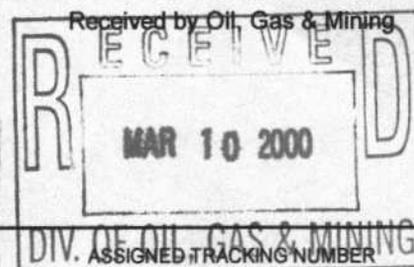
Signed: R. Jay Mantel 3/10/00 Chief Engineer

Subscribed and sworn to before me this 10th day of March, 19 2000

Mary B. Dickerson
Notary Public
My Commission Expires: 5-7-2001
Attest: [Signature]
STATE OF _____
COUNTY OF _____



MARY B. DICKERSON
NOTARY PUBLIC - STATE OF UTAH
25 EAST 1700 SOUTH
S.L.C., UT 84125
COMM. EXP. 5-7-2001



SUMMARY OF OUTSTANDING DEFICIENCIES

Revised: January 17, 2000

SUMMARY OF OUTSTANDING DEFICIENCIES

The Technical Analysis regarding the proposed permit changes is not complete at this time, pending submittal of additional information by the applicant and further review by the Division, to address outstanding deficiencies in the proposal. A summary of those outstanding deficiencies is provided below. Additional comments, concerns, and deficiencies may also be found within the analysis and finding make in the Draft Technical Analysis which have not been presented in this summary. Upon finalization of this review, any outstanding deficiencies will be evaluated for compliance with the regulatory requirements. Such deficiencies may be conditioned to the requirements of the permit issued by the Division, result in denial of the proposed permit changes, or may result in other executive or enforcement actions as deemed necessary by the Division at that time to achieve compliance with the Utah Coal Regulatory Program.

Accordingly, the applicant must address those deficiencies as found within this Draft Technical Analysis and provide the following, prior to approval, in accordance with the requirements of:

R645-301.341.210, Appendix 5-8 says the ratios and species of seedlings will be determined by the Bureau of Land Management and the Division, but the Division does not determine ratios and species for planting although it can make recommendations. If the applicant intends to plant seedlings, the plan needs to show what would be planted at what rates and where. 102

Text in Appendix has been changed. DOGM has been changed to DWR. Text in Appendix 5-8 has been changed to state that in the event that seeding does not result in shrub densities meeting standard, then bare root or containerized seeding will take place.

R645-301-114, The application needs to include right of entry information for the portions of the proposed revised permit area in the E½ SE¼ and SW¼ of Section 15 of Township 16 South, Range 14 East, the proposed facilities area. 14

ROW is under review with the BLM once the EA is approved a copy will be submitted to DOGM.

R645-301-115, The application needs to contain approval from the public road authority authorizing mining and reclamation operations within 100 feet of a public road. 15

Emery county has approved the Large Site Development Plan and UEI has entered into an MOU with Emery county for the haul road. The Large Site Development plan can be found in Appendix 4-2. The road MOU can be found in Appendix 1-4. In addition a letter specifically approving mining operations within 100' of a public road can be found in Appendix 4-2.

R645-301-116, The timetable in Section 116 is no longer realistic, so it should be updated. 15

SUMMARY OF OUTSTANDING DEFICIENCIES

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The timetable has been revised and can be found on Page 14 of Chapter 1.

R645-301-120 and R645-301-232.100, Correct soil salvage volumes and disturbed acreage in Section 231.400, Table "Available Soil Resource" and on Plate 2-3, Soil Salvage and Replacement. Soil Map Unit XBS, the upper, north portion of the portal access road, is not included in the estimates for topsoil removal and replacement. This area accounts for an additional 0.86 acres with 1,408 cubic yards of soil salvage. After correction, the total volume of topsoil salvage should be 49,011 cubic yards and the total salvage acreage should be 23.43 acres for an average salvage depth of 15.6 inches. 71

The table "Available Soil Resource on Page 11 of Chapter 2 as well as Plate 2-3 to reflect the corrected soil salvage volumes.

R645-301-121.100, Clarify and describe what is meant by the following statement used in Section 242.100: "previously stockpiled topsoil will be redistributed on the same areas in a thickness which approximates the reclaimed thickness on the scarified, post-mining graded surface." 95

Section 242.100 has been revised to make it clearer. The intent is to replace approximately the same amount of soil that was removed. If 8" of topsoil was removed from an area during construction the intent is to replace the 8" with an equivalent 8" upon reclamation.

R645-301-121.100, The applicant must remove the references in Appendix 5-5 to the refuse pile removed from the original mine plan. That information is no longer needed and can confuse the reader. 92

References to slope stability for the refuse pile has been removed from Appendix 5-5. Since the Refuse Pile is incised slope stabilities are not required.

R645-301-121.200 and R645-528.332, The applicant must clarify if the refuse pile shown on Plate 1 of Appendix 5-7 will be part of the mine. If not the refuse pile must be removed from the map. 77

Appendix 5-7 does not contain Plate 1. Appendix 5-7 does contain Figure 1 which shows the incised refuse pile with cross sections. The above ground refuse piles shown on Figure 1 of appendix 5-7 has been removed.

R645-301-121.200, R645-301-521.162 and R645-301-521.250, To prevent any accidental disturbance within the undisturbed areas, (as shown on Plate 2-3) within the Disturbed Area Boundary, provide the following: Delineate actual disturbed area boundaries within the Disturbed Area Boundary on all applicable plates and maps, Commit and correlate between chapters, that all undisturbed areas within the Disturbed Area Boundary will be appropriately signed and marked on the ground during construction activities and during mine operations. 71

SUMMARY OF OUTSTANDING DEFICIENCIES

Revised: January 17, 2000

The undisturbed islands within the disturbed area shown on Plate 2-3 are now shown Plates 2-3, 5-2, and 5-1A.

R645-301-121.200, The applicant must be clear, concise and consistent with the name used to refer to the disposal area for coal mine waste. The applicant refers to the area by several names such as the rock/coal waste storage areas, rock slope/coal waste storage areas, the pad and refuse pile. The applicant should avoid using terms to describe the coal mine waste that are not defined in the R645 rules. Those materials should be called coal mine waste, coal processing waste or underground development waste. 76, 77

The rock slope material is by definition underground development waste and is noted as such in the MRP text. The rock slope material most closely fits spoil but is found below and not above the coal seam. For lack of better definition the rock slope material was called underground development waste. References to "rock slope and refuse storage area" has been revised to "refuse storage area" the references to rock slope storage area has been revised.

R645-301-121.200, The applicant must either include the MOU with the county or remove the reference. On Page 11 of the Nov. 29, 1999 response the applicant states that MOU with Emery County was added to Appendix 1-4. That appendix does not contain an MOU from the county. The only correspondent with the county is a letter from the applicant to the county dated December 9, 1998. 57

Emery county has approved the Large Site Development Plan and UEI has entered into an MOU with Emery county for the haul road. The Large Site Development plan can be found in Appendix 4-2. The road MOU can be found in Appendix 1-4. In addition, a letter specifically approving mining operations within 100' of a public road can be found in Appendix 4-2.

R645-301-121.200, The applicant must either include the letter from Emery County stating that they have approved the construction of the mine facilities next to the county road or remove the reference. 57

Emery county has approved the Large Site Development Plan and UEI has entered into an MOU with Emery county for the haul road. The Large Site Development plan can be found in Appendix 4-2. The road MOU can be found in Appendix 1-4. In addition, a letter specifically approving mining operations within 100' of a public road can be found in Appendix 4-2.

R645-301-121.200, -722.200 -722.300, Locations of all known seeps and springs are stated to be shown on Plate 7-1. The location of RS-2 (Redden Spring) on Plates 7-3 is the same as water right 91-4959, (Table 7-2) on Plate 7-4, but on Plate 7-1 that location is labeled H-6 and RS-2 is at a different location, farther west. RF-1 is shown at different locations on Plates 7-1 and 7-4 and is shown as a spring on Plate 7-1. HC-1 is shown at different locations on Plates 7-1 and 7-4, and is shown as a spring on Plate 7-1. 51

Plates 7-1 and 7-4 have been corrected.

SUMMARY OF OUTSTANDING DEFICIENCIES

Revised: January 17, 2000

R645-301-121.200, -724.100, The applicant states that HC-1A is not on Plate 7-1 because no sample data or pertinent information are available; however, HC-1A is on Plate 7-1. 52

HC1-A has been removed from Plate 7-1.

R645-301-121.200, -731.220, Is HCSW-1 (Appendix 7-6) the same as HSW-1 (Appendix 7-6)?...the same as HC-1? (Appendices 7-2 and 7-6). 46

Section 731.220 has been rewritten and should help clear up the confusion.

R645-301-121.200, -731.220, Surface- water monitoring site B-1 is associated with HC-2 in Appendix 7-2, but HC-2 is associated with spring H-2 in Appendix 7-6. Sites B-1 and H-2 are approximately 2 miles apart on Plate 7-1. It needs to be clarified whether HC-2 is a surface or ground-water monitoring site and whether it corresponds with B-1 or H-2. 45

Section 731.220 has been rewritten and should help clear up the confusion.

R645-301-121.200, -731.220, Table 7-2 lists water right 91-4516 as being in Little Park Wash, but this water right is not shown on Plate 7-3, and the location listed in Table 7-2, Section 17, T. 16 S., R. 15 E., is not in Little Park Wash drainage. 46

Table 7-2 has been corrected and 91-4516 has been added to Plate 7-3.

R645-301-121.200, -731.220, The large black dot, which is used to designate stream-monitoring point B-1 and UPDES points 001, 002, and 003, is not explained in the Legend of Plate 7-1. Not all stream-monitoring sites use this symbol, but are shown as springs instead. 52

The large black dot has been added to the Legend on Plate 7-1.

R645-301-122, The applicant must change the reference from Plate 5-4 to Plate 5-3 on Page 51 of the submittal. Plate 5-3 shows the location of water rights and eagle nests. Plate 5-4 shows coal ownership. 61

The reference to Plate 5-4 has been changed to Plate 5-3 on Page 51 of the text.

R645-301-122, The applicant must supply the Division with a copy of the R2P2 since they reference the document in the coal recovery and subsidence section of the permit. The Division will store the R2P2 in the confidential file upon request. 58

A copy of the R2P2 was submitted for DOGM on 22 February 2000 and should be in the DOGM files. The R2P2 is considered confidential and should be treated as such.

R645-301-122, -624.130, Some outside sources cited in the text are STILL not listed in a

SUMMARY OF OUTSTANDING DEFICIENCIES

“reference” section: 34

Bibliography added to Page 42 of Chapter 6. Additional information added to C 7.

R645-301-131, All technical data submitted in the permit application must be accompanied by the names of persons or organizations that collected and analyzed the data, dates of the collection and analysis of the data, and descriptions of the methodology used to collect and analyze the data. This information is not complete for some studies in Appendices 3-1 and 3-2. 20

All know names and dates are included in Appendices 3-1 and 3-2. No additional information is available. After discussions with Paul Baker and Dave Darby it was determined that the information contained in the plan is adequate.

R645-301-232.500 and R645-301-234.300 through R645-301-234.320, Concerning Soil Map Units SBG, DSH, and VB subsoils which will be used as construction fill, the amendment needs to reference and discuss the following for preserving the subsoil rooting-depth growth characteristics: 1.) Identify areas on all applicable maps where subsoils from Soil Map Units SBG, DSH, and VB will be used as fill for construction of pads and other mining related areas, 2.) Identify the volumes of fill obtained from using subsoils from Soil Map Units SBG, DSH, and VB. 3.) Identify what measures will be used for protecting these subsoils from deleterious mining related impacts, including contamination from Mancos shale and excessive rocky soils during site construction and grading. If sufficient measures can not be given to protect the subsoil rooting-depth growth characteristics, then all suitable subsoils from Soil Map Units SBG, DSH, and VB must be salvaged and stockpiled. 71

Section 232.100 has been modified to describe how the subsoil was going to be protected from contamination with shale during design, construction and reclamation.

R645-301-232.700 and R645-301-232.710, If steep, rocky slopes and extremely bouldery surface materials render themselves suitable for constructing purposes using conventional construction equipment, (e.g., cutslopes, sediment pond basins, and pad fill) then these same indigenous soil and rock materials from the unconsolidated steep, rocky surfaces can be salvaged and stockpiled for later reclamation use. Provide the following: 1.) On steep and extremely bouldery surfaces planned for disturbance, underlying soils are expected to be salvaged. 2.) Commit that if an area is too steep or rocky for soil salvage, then no construction activities will take place within these areas of the Disturbed Area Boundary, 3.) Identify specific areas inaccessible for construction machinery due to adverse, unsafe or impractical conditions. 71

Section 232.710 has been modified. The only area where soil will not be reclaimed is the area between the ROM coal stockpile and the rock slopes. In this area the only disturbance will be the construction of one or two bents.

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R645-301-234.100, R645-301-521.160 and R645-301-521.165, Provide the following:
 1.) Designate a "topsoil rock stockpile" on maps where salvaged rock will be stored for reclamation use, and sign these piles accordingly during the life of the mine. 2.) Provide engineered drawings of projected stockpiles, showing size, exact placement, final configuration and cross sections for the topsoil stockpile, subsoil stockpile, and "topsoil" rock (boulders and large stones) stockpile. 72

After further discussions with Bob Davidson and Dave Darby it was determined that the information contained in Figure 1 in Chapter 2 and Section 232.100 was adequate for the topsoil pile design. No subsoil, or rock topsoil piles are proposed.

R645-301-241 and R645-301-234.300 through R645-301-234.320, 1.)Identify areas where subsoil from Soil Map Units SBJ, DSH, and VBJ was used as construction fills. 2.)Replace subsoil "construction fill" during reclamation as root zone subsoils. 3.)Identify pad and mine areas containing subsoil "construction fills" that will be graded to AOC. 4.) Identify methods to ensure that subsoil "construction fills" are used appropriately as root zone soils. 5.)Identify measures to ensure that graded subsoils are not contaminated with less desirable fills and materials (e.g., Mancos, shale, and excessive rock) during regrading AOC activities. 95

Section 232.100 has been modified to describe how the subsoil was going to be protected from contamination with shale during design, construction and reclamation.

R645-301-242 through R645-301-242.200, Concerning soil and rock replacement, provide the following: 1.) Describe methods for minimizing and alleviating compaction of fill and replaced subsoil and topsoil. 2.) Describe how stockpiled "topsoil" rock (boulders and large stones) will be placed on the surface and reincorporated with the redistributed topsoil. 3.) Correct the plan to indicate surface preparation practices that are compatible with the rocky soil and surfaces, and that are consistent with other reclamation practices (e.g., pocking). Drilling, discing or raking are not compatible with extreme rocky soils, rocky surfaces, or with surfaces that have been deep gouged or pocked. 95

UEI is not stockpiling large stones "boulders". Boulders will be pushed to the side and left during construction and then upon reclamation the boulders will be pushed back into the approximate location from which they came. Rocks of 36" or less will be stored in the topsoil pile with the soil and will be redistributed with the soil. No drilling discing or raking is proposed. Sections 232.100 and 242.100 have been modified.

R645-301-321, It appears woody plant densities in the 1999 vegetation study were not calculated properly, and this needs to be corrected. 20

The formula calculating woody plant density has been changed on the spreadsheets (Table 1, Table 2) found at the end of Appendix 3-2.

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R645-301-321, The 1999 vegetation study identifies medusahead rye as occurring in the grass/shrub reference area, and the report lists it as a desirable species. Medusahead rye is a noxious weed, so it should not be listed as a desirable species. The applicant needs to confirm the identification as it is not likely this species grows in the area. 20

Medusahead rye was reclassified as Squirrel Tale (*Elymus elymoides*) and Tables 1 and 2 of Appendix 3-2 has been modified.

R645-301-321, The applicant has not proposed to remove the 1998 vegetation report in Appendix 3-2 from the application. This report has several problems as discussed in previous technical analyses, but with some corrections, deletions, and reorganization, it would probably be possible to use some of the information. 20

To avoid confusion the 1998 inventory will be removed.

R645-301-321, The applicant needs to include complete woody plant density information. 21

An additional field survey was completed on 9 March 00 and the information has been added to Appendix 3-2.

R645-301-321, The applicant needs to provide vegetation productivity information for the areas proposed to be disturbed and for the reference area. 20

An additional letter on productivity dated March 1, 2000 has been added to Appendix 3-7 which will help clarify the productivity information.

R645-301-322, Section 322.220 of the text indicates the proposed disturbed area contains critical elk and deer winter range, but this is not reflected on Plate 3-1. Either the text or the map needs to be corrected. 24

The text in section 322.220 has been modified. The disturbed area does not contain either critical deer or elk winter range. Plate 3-1 is correct.

R645-301-322, The list of threatened or endangered species in Table 3-1 should be updated; peregrine falcons are no longer listed. Also, the Lahontan cutthroat trout would not be expected in Emery county but the razorback sucker would. 24

The list of threatened or endangered species (Table 3-1) has been modified to remove the peregrine falcon and add the razorback sucker.

R645-301-323, The application says the revegetation reference area is shown on Plate 3-1, but this statement needs to be corrected. The reference area is shown on Figure 1 of the report for the 1999 vegetation inventory. 103

SUMMARY OF OUTSTANDING DEFICIENCIES

The revegetation reference area is shown on Figure One of Appendix 3-2.

R645-301-331, Correct the mistake in Section 331, the application says the permit area would be 40.77 acres. 72

Section 331 was corrected. The disturbed area is 40.77 acres but the permit area is 6461.79.

R645-301-333, Identify what measures will be made during the life of the mine to protect the undisturbed island areas from mining related impacts, such as blowing coal fines, vehicle traffic, and other uses that would disturb and/or otherwise negatively impact the undisturbed vegetation and topsoil resources. 71

Section 231.100 was amended to address the undisturbed islands. They will be signed for protection.

R645-301-333, The applicant has committed to not subside escarpments that contain eagle nests, but it appears the area near one nest would be subsided. The applicant needs to show how nests in the subsidence areas would be protected or what mitigation will be done. The Fish and Wildlife Service has suggested building alternative nest sites in the area. 64

One eagle nest is within the area of potential subsidence but will be mitigated as per ROW/EA. Section 322.220 has been revised to explain in more detail.

R645-301-341.220, Chapter 2 says seed will be broadcast, but Chapter 3 indicates it will be either broadcast or drilled. The applicant needs to correct this discrepancy. Drill seeding is likely to reduce surface roughening, and this method should not be used. 103

All references to drill seeding in Chapter 3 has been removed. The intent is to broadcast seed.

R645-301-341.220, Chapter 2 says seed will be broadcast, but Chapter 3 indicates it will be either broadcast or drilled. The applicant needs to correct this discrepancy. Drill seeding is likely to reduce surface roughening, and this method should not be used. 103

All references to drill seeding in Chapter 3 has been removed. The intent is to broadcast seed.

R645-301-341.230, Chapters 2 only discusses hydromulching, but Chapter 3 says inaccessible areas will be mulched with straw. This inconsistency needs to be resolved. The straw mulching plan includes crimping the straw, and this would tend to decrease surface roughness. The Division would rather the straw not be anchored than to use a method that would decrease the amount of roughness. 103

References to straw in Chapter 3 have been removed the areas will be hydromulched.

SUMMARY OF OUTSTANDING DEFICIENCIES

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R645-301-341.250, The applicant needs to clarify the success standards for seasonality and diversity. 103

Section 341.250 has been changed to better define seasonality and diversity.

R645-301-341.250, The application needs to demonstrate that the introduced species proposed for use in the plan for final reclamation are desirable and necessary for achieving the postmining land use. 102

See the bottom of Table 3.4/3.5 for explanation.

R645-301-341.250, The proposed success standard for erosion control is generally acceptable, but the applicant needs to commit to demonstrate compliance with several samples showing a trend, and every drainage leading away from the disturbed area must be included in the sampling regimen.. . . . 103

Section 341.250 has been modified to include all drainages leading away from the disturbed area.

R645-301-341.300, R645-301-354, The revegetation plan shows two warm season species being planted in the fall where experience in other states indicates these species could be best established by planting them in the summer. To test whether summer or fall seeding is best, the applicant needs to designate at least one area of the mine where interim vegetation would be established and plant blue grama and galleta in the summer. This treatment could be compared to fall seeding. The application needs to show where this would be done and discuss how the site would be monitored. 102

Section 354 has been modified to explain the test area near the proposed sediment pond.

R645-301-411.110, Boundaries of the Turtle Canyon Wilderness Study area and the areas identified in the 1999 wilderness inventory as having wilderness characteristics need to be shown on a land use map, such as Plate 4-2. 30

The Turtle Canyon wilderness Study area and the 1999 reinventory areas can be found on Plate IV of the EA. A copy of the EA is on file with the Division.

R645-301-411, In Section 411.110, the application refers to Figure 1 for information on big game and raptor habitat, but this figure could not be found. This reference needs to be corrected. 30

Section 411.110 was changed from Figure 1 to Plate 3-1. Plate 3-1 is where information on big game and raptor habitat can be found.

R645-301-521.190, The applicant must give the Division a copy of the letter from the State Engineer stating that the sediment pond design has been approved. 85

SUMMARY OF OUTSTANDING DEFICIENCIES

Revised: January 17, 2000

The State Engineers approval has been added to Appendix 7-4.

R645-301-521, The applicant must be consistent with showing the disturbed area boundaries. On Plate 5-2 the applicant shows that all land within the disturbed area boundary is disturbed. On Plate 2-3 the applicant shows 3 undisturbed areas within the disturbed area boundaries. If the applicant intends to have undisturbed islands with the disturbed area boundary then the island must be marked. The applicant cannot use the disturbed area boundaries for mining or reclamation without amending the permit. 87

Section 231.100 was amended to address the undisturbed islands. They will be signed for protection.

R645-301-521, The applicant should identify the areas labeled on Plate 5-1 as the **Horse Canyon Permit** and the **Lila Canyon Significant Revision to the Horse Canyon Permit** or the **Lila Canyon Tract to the Horse Canyon Permit**. The applicant should identify the complete Wilderness Study areas on at least one Plate. 51

The Turtle Canyon wilderness Study area and the 1999 reinventory areas can be found on Plate IV of the EA. A copy of the EA is on file with the Division.

R645-301-521, The applicant should submit detailed designs showing size slope and height of all features of the sedimentation pond and adjacent area, see deficiencies under Operation Plan. Plates 7-5 and 7-2 show a "Refuse Pile" location above drainage DD-4, this has to be corrected. All the culverts are not identified on Plate 7-2. Their size and length should be stated. 88

The words "Refuse pile" has been removed from Plates 7-5 and 7-2.

R645-301-521, The surface reclamation map should show reclamation contours of the sedimentation pond and culvert UD-6 in place and removed. 98

The sediment pond drawings were changed as per discussions with Dave Darby.

R645-301-522 and R645-301-525.240, The applicant must give the Division a detailed coal recovery plan. That plan must include the coal extraction ratios and the calculations for the longwall areas, full extraction room-and-pillar areas and first mining only areas. A copy of the R2P2 or a mine plan approval letter from the BLM would help the Division make a finding about coal recovery. 58

A copy of the R2P2 has been submitted for DOGM files. The R2P2 is considered confidential and should be treated as such.

R645-301-525.110, The applicant must show the location of the escarpments that need to be protected from subsidence on Plate 5-3 or other suitable map. 61, 62

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The out crop is shown in blue. The Castlegate Sandstone is the only escarpment to be protected and is located along the red line on plate 5-3. Note that the escarpment is well outside of the maximum extent of potential subsidence. Also note that only mains (first mining) is planned from the outcrop in approximately 1,000 feet. A note has been added to the legend under the red outcrop/escarpment line.

R645-301-525.440, The applicant does not give details of the subsidence monitoring plan. The only information about the plan is that it will involve aerial surveys. The Division needs to know the number and location the subsidence monitoring points before plan can be evaluated. The subsidence monitoring points must be shown on Plate 5-3 or other subsidence maps. 61

Text in Section 525.440 address the number and location of subsidence points.

R645-301-525.440, The Division finds the monitoring program inadequate because the survey time is too short. The Division usually requires the applicant to monitor 5 years and wants assurances that subsidence has stopped for 3 years before the subsidence survey is ended. 61

Text in section 525.440 has been modified so that subsidence monitoring would not be terminated until no significant subsidence has taken place for three years.

R645-301-525.440, The subsidence monitoring program must include a ground survey. The ground survey is needed to find cracks that could affect surface water. Note: the Division did require the applicant to remove a phrase from the amendment that involved a ground survey being needed to verify subsidence damage before mitigation could occur. The Division did not want the ground survey to be removed rather that mitigation would only occur after a ground survey was conducted R645-301-122. The applicant must supply the Division with a copy of the R2P2 since they reference the document in the coal recovery and subsidence section of the permit. The Division will store the R2P2 in the confidential file upon request. 61

The text in section 525.440 has been modified reflecting a ground survey in conjunction with the quarterly water monitoring.

R645-301-525.490, The applicant must show on Plate 5-5 or other similar maps those areas where subsidence control methods (first mining only) will be used to protect surface structures such as escarpments, seeps and springs and eagle nests. 87

Plate 5-3 (Subsidence Control Map) shows where first mining will take place and the locations of seeps, springs, and eagle nests.

R645-301-526.133 and R645-301-526.116, The applicant must show how the public

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will be protected from mining and reclamation activities constructed within 100 feet of the county road. Specifically the applicant must address how the public will be protected from the hazards associated with the sediment pond and other mine facilities. 57

Emery county has approved the Large Site Development Plan and UEI has entered into an MOU with Emery county for the haul road. The Large Site Development plan can be found in Appendix 4-2. The road MOU can be found in Appendix 1-4. In addition, a letter specifically approving mining operations within 100' of a public road can be found in Appendix 4-2.

R645-301-528.332, The applicant needs to show the location of the on site concrete disposal areas and describe how the concrete will be placed and covered. If the applicant intends to dispose of noncoal mine waste in an area that is not a state approved facility then they must submit designs to show that no leachate will enter the groundwater or surface water. 77

Section 542.741 has been revised to state that "concrete will be buried in the refuse disposal area and covered with a minimum of four feet of fill.

R645-301-533.100, The applicant should submit information on Plate 7-6 which details the outslope embankments, slope and size of culvert, UD-6, beneath pond, roadway width and slope, locations and design of trash-racks, locations and design of discharge pads, emergency spillway design, path of emergency discharge, sediment cleanout marks and topographic relationship of sediment pond to undisturbed channel using scale of 1 foot intervals. 85

Plate 7-6 and Appendix 7-4 have been modified to include additional details of the sediment pond.

R645-301-533.300, The applicant must show how the pond will be protected against sudden drawdown. Specifically the applicant must show that pore pressure in the embankments will not cause the pond to fail should a sudden drawdown occur. 85

Wayne will call me when we can run the program.

R645-301-533.700, The applicant must label the contour lines on Plate 7-6. The applicant must also show the correct location of the emergency spillway on the contour maps. The elevation of the emergency spillway is shown between 5839 and 5841 feet on Plate 7-6. The table shows the elevation to be 5841 feet. 85

Plate 7-6 revised November 1999 shows the emergency spillway at 5841 feet and the contours are labeled.

R645-301-536.100, The designs for the refuse pile must include the detailed cross sections and maps. 77

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Designs, cross sections and maps for the refuse pile can be found in Appendix 5-7 and shown on Figure 1 of Appendix 5-7. Figure 2 of Appendix has been added and the cross sections shown on Figure 1 have been enlarged on Figure 2.

R645-301-542, The applicant must give the Division detailed cross section of the reclaimed surfaces. The cross section must also show highwall elimination. 105

Additional cross sections have been added to plate 5-7C. Cross sections for all three portals are shown on plate 5-9. The portals are located below a natural escarpment and no highwall will be created.

R645-301-553.120, In Section 553.120 the applicant must give the Division detailed maps and cross sections of the portal areas. Without that information the Division cannot make a finding about the adequacy of the highwall elimination plan. The Division needs a cross section of profile of each portal. The portals must be identified on the cross sections. Note: by definition a highwall will be created as part of the portal. See analysis section for more details. 91

Cross sections for all three portals are shown on plate 5-9. The portals are located below a natural escarpment and no highwall will be created.

R645-301-553.130, In Section 553.130 the applicant states that all reclaimed slopes will have a static safety factor of at least 1.3. The applicant did not provide the slope stability analysis that supports the 1.3 safety factor claims for the reclaimed slopes. The Division did not receive that information. 92

Text in Section 553.120 has been revised to refer to Appendix 5-5 for reclaimed slope stability analysis. Appendix 5-5 does show slope stability for reclaimed slopes.

R645-301-553.300, The applicant does not address how combustible material and acid and toxic forming materials will be handled. Nor how the applicant will handle coal processing waste. 92

Section 553.300 has been revised.

R645-301-722.100, A water right for the Minerals Development Corporation (MDC) well is listed in Table 7-2. The MDC well and another well that is located nearer the Horse Canyon Mine surface facilities are discussed in Section 722.400. Both wells are shown on Plate 7-1 but they are not clearly identified. 51

Location of the MDC is shown on Plate 7-1. However, Plate 7-1 has been modified to more clearly identify the well.

R645-301-722.300, Horse Canyon Mine UPDES discharge points 001, 002, and 003 are shown on Plates 7-1 and 7-4. Currently monitored UPDES discharge points 001A and 001B are not shown on either map. 51

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Plates 7-1 and 7-4 have been modified.

R645-301-724.200, Table 7-2 lists water right 91-4516 as being in Little Park Wash, but this water right is not shown on Plate 7-3, and the location listed in Table 7-2, Section 17, T. 16 S., R. 15 E., is not in Little Park Wash drainage. 52

Table 7-2 has been corrected and water right 91-4516 is shown on Plate 7-3.

R645-301-724, The applicant should provide seasonal records of precipitation and temperature range data. 17

Sections 731.211, 731.220, Table 7-3, and Plate 7-4 have been modified.

R645-301-731.210, L-6-G (Mont Spring) corresponds with spring H-21 monitored by JBR Consultants in 1985. There are baseline data for spring H-21, for 1985 only, in Appendix 7-6 of the Lila Canyon Significant Revision. L-7-G (Leslie Spring) corresponds with H-19. There are no baseline data for spring H-19. Baseline data for L-6-G (H-21) and L-7-G (H-19) are not adequate. 45

Sections 731.211, 731.220, Table 7-3, and Plate 7-4 have been modified.

R645-301-731.210, Spring L-8-G (Cottonwood Spring) does not correspond to any spring that has been monitored previously, so there are no historic baseline data for this spring. Baseline data are not adequate. 45

Sections 731.211, 731.220, Table 7-3, and Plate 7-4 have been modified.

R645-301-731.210, There are some field parameters from 1993 and 1995 for L-10-G (Spring 22, Pine Spring) in Appendix 7-1, but no water-quality analysis reports: this spring was frequently observed to be dry from 1993 to 1995. Baseline data are not adequate. 45

Sections 731.211, 731.220, Table 7-3, and Plate 7-4 have been modified.

R645-301-731.220, Data for HCSW-1 are in Appendices 7-1 and 7-6 and data for HCSW-2 and HCSW-3 are in Appendix 7-1. Locations for HCSW-1 and HCSW-3 could not be found on Plate 7-1. HCSW-2 is marked as a seep or spring on Plate 7-1, rather than as a surface water monitoring site. 52

Plate 7-1 has been modified.

R-645-301-731.221, The applicant should submit plans to include monitoring sites Range Creek above and below the extent of the mine. 85

Should significant underground water be encountered, UEI will imitate an internal water monitoring program for Range Creek. The plan is not intended to become part of the MRP.

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**R-645-301-731.221, The applicant should submit plans to include monitoring sites
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