

**From:** Pam Grubaugh-Littig  
**To:** herb@suwa.org  
**Date:** 5/25/2005 1:37:28 PM  
**Subject:** Fwd: Lila Canyon Extension - #2159

Hi, Herb. Just wanted to let you know that we sent a deficiency letter to Jay Marshall for the Lila Canyon Extension to the Horse Canyon Mine last week.

fyi. Pam

**CC:** Sheila Morrison

**From:** Angela Nance  
**To:** jaymarshall@sisna.com  
**Date:** 5/23/2005 12:08:50 PM  
**Subject:** Lila Canyon Extension - #2159

Please find attached a courtesy copy of our findings for your review. Please note that an original is being sent via regular mail.

**CC:** Pam Grubaugh-Littig



**State of Utah**  
**Department of**  
**Natural Resources**

MICHAEL R. STYLER  
*Executive Director*

**Division of**  
**Oil, Gas & Mining**

JOHN R. BAZA  
*Division Director*

JON M. HUNTSMAN, JR.  
*Governor*

GARY R. HERBERT  
*Lieutenant Governor*

May 20, 2005

Jay Marshall, Resident Agent  
UtahAmerican Energy, Inc.  
P.O. Box 986  
Price, Utah 84501

Subject: Lila Canyon Extension, UtahAmerican Energy, Inc., Horse Canyon Mine, C/007/0013, Task ID #2159, Outgoing File

Dear Mr. Marshall:

The Division has reviewed your application for the Lila Canyon Extension to the Horse Canyon Mine, and has determined that the information in the plan is once again inadequate in some areas. Of the 49 listed deficiencies, several are for clear and concise issues, and 19 are for issues that have been deficient in the past. Some of the deficiencies are the result of your recent edit of your application.

A list of the technical deficiencies is included in this letter. Before the Division can approve the application, UtahAmerican Energy must adequately address the deficiencies.

The initials of the reviewer are at the end of each deficiency. If you have any questions, comments or need additional clarification please contact the individual reviewer. The reviewers are:

DD Dana Dean;  
DWD Dave Darby;  
JAE Jerriann Ernsten;  
JDS Jim Smith;  
PWB Priscilla Burton; and  
WHW Wayne Western

In order for us to continue to process this application, please respond to these deficiencies by August 20, 2005. To facilitate the review, the Division requests a redline/strike out format under R645-301-121.300.

Please be aware that, although it is not listed as a deficiency at this time, before construction of the mine may begin, UtahAmerican Energy will be required

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Jay Marshall  
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to comply with the requirements of R645-103-234.200 through R645-103-234.300. This requires that UtahAmerican Energy provide opportunity for a public hearing regarding the work within 100 feet of a public road.

If you have any questions, please call me at (801) 538-5268, Wayne Western at (801) 538-5263, or Dana Dean at (801) 538-5320.

Sincerely,

Pamela Grubaugh-Littig  
Permit Supervisor

an  
cc: Price Field Office  
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**LIST OF DEFICIENCIES**

**R645-300-124.300**, UEI must move Appendix X-1 and X-2 from the MRP–Part A Volume IV to the Confidential File (JAE)

**R645-301-112.200, and R645-301-112.300 et seq** The Permittee must provide phone numbers and social security (or other unique identifying) numbers for the Resident Agent, the person who will pay the abandoned mine land reclamation fee, and all owners and controllers of the Applicant. **Note: follow confidential files procedure for submitting social security numbers** . (DD)

**R645-301- 112.800, R645-301-521.141 and R645-301-522**, UEI **must** provide the size, sequence, and timing of the mining of subareas for which it is anticipated that additional permits will be sought. It is public information that UEI has submitted a lease by application to the BLM for additional leases to the south and east (refer to *Coal Age Magazine* May 1, 2002). The PAP must include a statement of this pending bid on lands contiguous to the permit area. (WHW)

**R645-301-121.200**, Incorrect citation found on page 6, Section 222.400, please correct to indicate that the productivity information is found in Appendix 3-2, not 3-7 as is currently stated. (PWB)

**645-301-121.200**, To make the PAP clear and concise UEI must 1) remove the double negative in Section 513.100 of the PAP “No Coal processing waste dams or embankments are not anticipated during the term of this permit”, 2) cite the correct reference in Section 513.500 (30 CFR 75.1711 instead of 30 CRF 75.1771), and 3) in Section 513.700 of the PAP UEI must clarify that no surface mining will be conducted within 500 feet of an active underground coal mine instead of no mining will be conducted. (WHW)

**R645-301-121.200**, UEI must list the correct number of acres within the disturbed area boundary, the acres that will be disturbed and the acres in the undisturbed islands. For example (1) in Section 116.100, UEI states that there will be 42.6 surface acres within the disturbed area boundaries but only 25.3 acres will be disturbed, (2) in Section 322.220, UEI states that the actual disturbed area is approximately 40.77 acres, (3) in Section 330, UEI states that only 40.77 acres are within the surface disturbance area, (4) in Section 333, UEI states that less than 40.77 acres of habitat will be lost, (5) in Section 411.110, UEI states that 42.6 acres will be within the surface disturbance area and then 25.06 actual disturbed acres, (6) in Section 542.200, UEI states that 42.6 acres will be within the surface disturbance area and 25.3 acres will be disturbed, (7) in Section 731, UEI states that there will be 48 acres of surface disturbance and (8) in Section 741, UEI states that there will be 39.81 acres of disturbance with and additional 10 acres in the transportation corridor. **In addition** , in Section 521.141 of the PAP UEI states that Plate 5-1 and Plate 5-2 show the disturbed area boundaries but only Plate 5-1 shows the permit area boundaries while Plate 5-2 shows the disturbed area boundaries. UEI must show the

approximate location of the disturbed area boundaries on Plate 5-1 and state in Section 521.141 that they show the permit/affected area on Plate 5-1 while they show disturbed area on Plate 5-2. (WHW)

**R645-301-121.200**, Section 525.110 of the PAP mentions an eagle nest being on Map 5-3, correct this to state that the information is on Map 5-3 (confidential file). (WHW)

**R645-301-121.200**, In Appendix 5-4 UEI states several times "See Appendix 5-4 and Plate 5-2 for additional information." The appendix must not refer to itself. • In Appendix 7-4 section 3.1 e, UEI must list the type of equipment that can compact a 15" lift to obtain a 95% compaction or modify the designs. The Division is only aware of compaction equipment that can compact lifts of up to 6 inches. • UEI must also refer to each structure by only one name. Examples of structures referred to by more than one name include, but are not limited to; 1) on page 8, UEI lists "Under Ground Power Lines" but on page 11 those facilities are referred to as "Power Lines and Power Poles", 2) On page 9, UEI lists the sewer tank #9 and the drain field #10 as two separate items but on page 11 they are listed as one item and 3) The names of the conveyors on page 9 are not consistent with those on pages 12 and 13. (WHW)

**R645-301-121.200**, UEI must clarify the PAP by 1) stating in the engineering section of the PAP that the reclamation plan for the sediment pond is in Appendix 7-4, 2) clearly showing the section of culvert that the County will install (six feet from the road embankment) on the operational and reclamation maps, 3) indicating in the text who will place rip rap and vegetate the pond embankment when the pond is reclaimed (either the County or UEI) and 4) referring to the culvert as UC-2 instead of UC-1 in Appendix 7-4. (WHW)

**R645-301-121.200**, UEI must change the reference in Section 542.310 of the PAP so that reclamation maps are listed instead of operational (Plate 5-2 is an operational map while Plate 5-3 is a reclamation map). •In addition, UEI must show the 5-foot contours on Plate 7.7. (WHW)

**R645-301-121.200**, The Permittee needs to • Restore Sections 537.200 through 537.250 (pp. 54 and 55) to the submittal; • Remove the extraneous text (underlined below) inserted into the first sentence of Section 731.521 - Portal Location. 'The proposed access portals are below the characteristics will be properly stored, protected from runoff, removed to an approved disposal site or buried on site beneath a minimum of 4' of non-acid, non-toxic material. coal outcrop, as shown on Figure 7-1, Plates 5-5 and 7-5.' (JDS)

**R645-301-121.300**, UEI must move all maps illustrating raptor nest locations from the MRP- Parts A & B to the Confidential File. UEI must prepare a separate confidential folder for Part A. To keep consistent with the folder "Lila Confidential File", UEI may want to title the folder for Part A "Horse Canyon Confidential File". (JAE)

**R645-301-231.400**, Section 231.400 of the MRP indicates that seeding will be conducted after September 15, but the last optimum date for planting must also be indicated. This will establish the window of favorable planting time. (PWB)

- R645-301-322.100**, (1) Survey all suitable raptor habitat including Section 26, T.16 S., R. 14 E.  
(2) Conduct raptor surveys at least two years immediately prior to and one year following facilities construction. (JAE)
- R645-301-333**, Conduct raptor surveys within a one-mile buffer zone of the surface facilities area once every three years. (JAE)
- R645-301-420**, (1) In accordance with the approved Air Quality Order DAQE-702-99 General Condition # 13, Section 520 of the MRP-Part B must indicate that the haul road will be paved during construction of the facilities and before coal mining operations begin, not 'in the long term.' (PWB)
- R645-301-512.200, R645-301-521.170 and R645-301-527.200**, UEI must have a licensed, professional engineer certify each section of the text, each map, and profile, and cross section in Appendix 5-4 that specifically describes the mine facility and the new slope access/portal roads. (WHW)
- R645-301-521.163, and R645-301-521.190**, UEI must revise all maps that show the disturbed area boundaries and the surface facilities. Figure 1 in Appendix 5-7 was not revised to show the changes in the disturbed area boundaries, for example the culvert under the County Road is shown to be within the permitted and disturbed area. The disturbed area boundaries near the coal stacking tube and main haul roads are different on Figure 1 than on Map 5-2. (WHW)
- R645-301-521.150**, UEI must show operational and premining contours of the sediment pond and topsoil storage area on Map 5-2. Currently, the contours of the sediment pond show only the operational contours. • The contours cannot touch unless there is an underground opening or an overhang, (the contours that depict the sediment pond cross other contours. • The contours do not show that the pond is a depression (label the contours or use hachures). • The contours lines for the sediment pond are black indicating a 25-foot spacing instead of gray indicating a 5-foot spacing. • Map 5-2 must show only the operational contours of the topsoil pile (UEI shows the operational and premining contours). • The contour intervals on every map must be at 5 feet. (WHW)
- R645-301-521.150**, UEI must not superimpose operational and premining contours for the sediment pond and topsoil storage area on Map 5-2. The sediment pond contours must show that the pond is a depression (label the contours or use hachures). In addition, the sediment pond and topsoil contours must be the proper colors (gray if 5-foot intervals, black if 25-foot index contours). (WHW)
- R645-301-521.163 and R645-301-121.200**, UEI must clarify that they propose to only bond for the disturbed area or adjust the bond accordingly. In Section 521.163 of the PAP, UEI states that all areas within the permit boundary have been bonded. That statement is incorrect. UEI only bonded the disturbed areas not the entire permit area. (WHW)
- R645-301-525.130**, UEI must show that all property owners in, and around, the Lila Canyon Extension received copies of the water rights survey. The Division does not consider giving the BLM a copy of the PAP adequate notification. UEI must either give the BLM

a separate copy of the water right survey or send the BLM a letter stating that the survey was conducted and where in the PAP to find the information. A copy of the letter and the receipt from the U.S. Postal Service must be in the PAP and on file at UEI's office or similar documentation providing confirmation of delivery. (WHW)

- R645-301-525.300, R645-301-525.490**, UEI must provide a detailed description of how they will mitigate subsidence fractures to the surface water channels, even those that act ephemerally. Information should include a monitoring plan to identify cracks and other effects on channels, as well as what type of equipment and methods they plan to use in mitigation. (DWD)
- R645-301- 525.310, R645-301.252.420 and R645-301-525.452**, UEI must state in Section 525.310 and 525.420 of the PAP what resources they are protecting from subsidence with the use of "partial mining" and why. • UEI must clarify the statement in Section 525.452 of the PAP about not using support pillars in light of the partially mined area. (WHW)
- R645-301-525.430**, UEI must accurately state the depth of cover throughout the MRP. In Section 525.430 of the PAP, UEI stated that the depth of cover ranges from 1,500 feet to approximately 2,300 feet. In Section 525.120 of the PAP, UEI stated that the depth of cover ranges from 0 feet to approximately 2,300 feet. (WHW)
- R645-301-525.450**, UEI must (1) define the term partial mining and how it differs from first mining (Map 5.5) and (2) state why partial mining will prevent subsidence and include supporting technical information. (WHW)
- R645-301-526**, UEI must state how they will reclaim each structure for bonding purposes. For example, UEI must state how they will reclaim underground facilities such as powelines and pipes. Will UEI leave the structures in place or reclaim them? • UEI must also include each facility in Section 520 of the PAP. Missing items include but are not limited to; 1) fuel tanks, 2) powder and cap magazines, 3) chain link fences and 4) guard rails. • UEI must include basic design information for all structures in Section 520, including but not limited to: 1) coal stacking tube, 2) escape tunnel, and 3) reclaim tunnel. (WHW)
- R645-301-526.221**, UEI must design culvert UC-2 so that the culvert begins at the undisturbed boundary. On Plate 5-2, UEI shows that the culvert will begin 100 feet within the disturbed area boundary instead of at the disturbed area boundary. The design change is needed to prevent materials from within the disturbed area from entering into the flow from the South Fork of Lila Wash. • UEI must correctly show the surface facilities on Figure 1 Appendix 5-7, for example, UEI refers to the culvert that will go under the sediment pond as UC-1 in the appendix, but refers to that culvert in the rest of the PAP as UC-2. (WHW)
- R645-301-526.222**, To protect islands of undisturbed area within the permit area, the Permittee has included in the PAP a commitment to visually monitor undisturbed ground within the permit area and vacuum when coal fine deposition is greater than one inch (Section 234.220). The Division has previously indicated that vacuuming is unacceptable as a means of control for undisturbed areas. The plan must indicate that if monitoring reveals **any visible accumulation** of coal fines deposited on the undisturbed soil, then water

sprays on the open stockpile will be warranted as per August 27, 1999 Approval Order (DAQE-702-99) General Condition #16 or additional measures, such as a wind fence will be employed. As an alternative, UEI could broaden the area of topsoil salvage within the disturbed area. (PWB)

**R645-301-526.300**, UEI must include designs for the septic tank and drain field in Appendix 5-4. UEI states in Section 520, subsection Sewer Tank & Drain Field, that designs for those facilities are in Appendix 5-4. However, Appendix 5-4 does not contain any design information for the sewer tank or drain field. (WHW)

**R645-301-527.200 and R645-301-527.210**, UEI must show the location of each culvert and ditch on Plate 5-2, • UEI must label the map in Appendix 5-4 Mine Facility Road Design section, include a scale, give other pertinent information in the legend and show the correct disturbed area boundary. (See the area around DC-7.) (WHW)

**R645-301-527.200 and R645-301-527.210**, UEI must show the location of each culvert on Plate 5-2. The Division needs the location of each culvert shown of the surface facilities map to conduct routine inspections. Any confusion caused by the clutter of showing the culverts is offset by not having to use multiple maps in an inspection. (WHW)

**R645-301-528.323.1** UEI must update the coal mine waste fire extinguishing plan so that • in areas where the refuse has been covered, water cannot be employed due to the potential for steam explosions, and • UEI must identify soil material that can be used for fighting fires. (WHW)

**R645-301-542**, UEI must be consistent on all maps and cross sections about the final surface configuration of the sediment pond area. Examples of inconsistencies include but are not limited to; 1) Map 5-6 shows that the minimum elevation of the reclaimed sediment pond will be between 5,845 ft. and 5840 ft. while on Map 5-7A-2 the minimum elevation of the sediment pond is 5,830 ft., and 2) Maps 5-5 and 5-6 show the minimum elevation of the area as 5,845 ft. while cross section B-B' on Map 7-6 shows the minimum elevation at 5,830 ft. (WHW)

**R645-301-542**, UEI must modify Plate 7-6 so that it shows detailed information about the premining, operational and reclamation contour information in the sediment pond area. Specific items are 1) all numbers and letters must be legible (cross section B-B' C-C' and D-D'), 2) the map must contain a profile that shows the premining, operational and reclamation elevations and 3) the information on Map 7-6 must be consistent with the information on Map 5-7A-2 (cross section 4+00 and cross section B-B' show different configurations for the reclaimed pond area.) (WHW)

**R645-301-542.200**, UEI must provide a reclamation stream profile for the disturbed section of the Right Fork of Lila Wash. (WHW)

**R645-301-542.200**, UEI must include the amount of materials that they will move during reclamation. In addition, those materials must be subdivide into topsoil, noncoal waste (concrete), coal mine waste and general backfill. • UEI must also provide references and

calculations to show where the volumes came from in order for the Division to determine the bond amount. (WHW)

**R645-301-553.130 and R645-301-121.200**, UEI must use cross-sections in the slope stability analysis that represent the on site conditions. The cross sections in Appendix 5-5 show that all slopes are in a homogenous soil. When the Division visited the site they saw that the bedrock is near the surface. Therefore, the cross sections must show the rock/soil interface. The interface is important because it will control the failure surface. A slide is unlikely to occur through bedrock. If a slide does occur through bedrock then UEI must consider other factors such as pore pressures and slippage planes. • In addition, UEI must also clearly show or state the safety factors for the reclaimed slopes on pages 16-18 of Appendix 5-5. The safety factors on the safety factor contour diagram are not clearly labeled. • In addition, UEI must include slope stability analysis for the refuse pile. In Appendix 5-7 UEI states that the safety factor is 16.19 but does not provide a reference. (WHW)

**R645-301-553.130**, UEI must revise the designs for the steeper cut slopes on pages 19-21 of Appendix 5-5 because the safety factor is less than 1.3. In the stability analysis, UEI showed that the safety factor was 1.28. While 1.28 does round up to 1.3, 1.28 is less than 1.3. Therefore, UEI must revise the designs not just round up the current safety factor. For example, if UEI could show that part of the cut slope was in bedrock, then the safety factor would most likely increase. In addition, on page 21 of Appendix 5-5 the UEI shows that the steep slope will have a safety factor of 0.99 under saturated conditions. Since failure will occur if the safety factor is less than 1.00, the slope will fail when it is saturated. Since UEI includes the saturated condition, they must assume that such conditions will exist. (WHW)

**R645-301-624.100**, Reference is made in Section 724.100 (p. 19) to Appendix 7-7 for information on the relationship of the Stinky Seeps to faulting, but Appendix 7-7 contains no discussion of this subject. Plate 7-1 shows these seeps could be related to the Graben Fault, and descriptions in Appendix 7-3 associate these seeps with the graben, although not directly with the fault zones. The letter accompanying the submittal states the reference to Appendix 7-7 on page 19 was removed, but this is not so. The Permittee needs to clarify the reference in Section 724.100 (p. 19) or include in Appendix 7-7 information on the relationship of these seeps to faulting. (JDS)

**R645-301-722**, UEI will submit a map identifying where mining will take place within 100 feet (horizontal) of a stream channel. (DWD)

**R645-301-724.100, 748**, Section 724.100 states Horse Canyon Well will be refurbished and used during the mining and reclamation activities then sealed and plugged. The current management and condition of Horse Canyon Well are briefly described in supplemental information that accompanied the December 6, 2002 submittal. The letter accompanying this latest submittal states that similar information was added to Section 724.100, but this is not so. The Permittee needs to include information on the present management and condition of Horse Canyon Well in the MRP. (JDS)

**R645-301-731**, UEI will update maps for the sedimentation pond showing how runoff from the small drainage east of the pond will be routed into the undisturbed channel or into the pond. (DWD)

**R645-301-731.200**, The MRP states (Section 731.211, p. 38) that there are 13 ground-water monitoring sites proposed for the Lila Canyon Extension, but that number includes sites L-6-G and L-10-G, which were abandoned in 2003. There are currently only 11 sites proposed for operational monitoring (Table 7-3). The letter accompanying the current submittal states the reference in Section 731.211 was changed to reflect 11 sites for operational monitoring, but this is not so. The Permittee needs to update Section 731.211 to indicate that 11 ground-water sites are to be monitored under the proposed plan for the Lila Canyon Extension or clarify that the 13 sites include 2 that are no longer monitored. (JDS)

**R645-301-731.400**, Section 731.400 states, "There are presently no plans to transfer any wells to any other party." The letter accompanying this latest submittal states that text describing the possible future transfer of this well to CEU as part of the approved post-mine land use change was added to Sections 724.100 and 731.400, but this is not so. The Permittee needs to update the MRP and clarify the possible future transfer of this well to CEU. (JDS)

**R645-301-742.333**, The Permittee needs to clarify what precipitation events are used in the designing of diversions. Section 742.333 states peak runoff of a 2-year – 6-hour precipitation event as used; designs in Appendix 7-4 are based on a 10-yr, 6-hr event. The designs in Appendix 7-4 are therefore more robust than indicated in Section 742.333, but the discrepancy in the text in Section 742.333 (and anywhere else in the MRP a similar statement appears) needs to be corrected. The letter accompanying the current submittal states Section 742.333 was changed to address this, but this is not so. (JDS)

**R645-301-830.140**, UEI must include enough information about each structure and facility in order for the Division to determine the demolition cost. Items that need additional information include, but are not limited to 1) fuel tanks, 2) powder and cap magazines, 3) chain link fence, 4) guard rails, 5) coal stacking tube, 6) escape tunnel and 7) reclaim tunnel. In addition UEI must also include the cost must include airlifting equipment on and off the fan portal site. (WHW)

**R645-301-830.140**, UEI must have documentation showing that they are properly insured before the Division will approve the Lila Canyon Extension. The ACCORD in Appendix 8-2 showed that the insurance policy expired on June 1, 2004. (WHW)