

TECHNICAL MEMORANDUM

Utah Coal Regulatory Program

December 29, 2003

TO: Internal File

FROM: Priscilla Burton, Environmental Scientist, III, Soils

RE: Post Mining Land Use Change, Utah American Energy, Inc., Horse Canyon Mine, C/007/0013, Task #1630, 1756, and 1785.

SUMMARY:

Information to support the proposal for post mining land use change from wildlife habitat to residential/recreational (review task #1785) was received on December 15, 2003; and as task #1756 on November 14, 2003; October 16, 2003; and September 3, 2003. Previous information had been received on July 11, 2003 (review task #1630). This post-mining land use change is for the 16.18 acres of the mine pad area that have not yet been reclaimed and that have not received Phase II bond release. The area being considered for post mining land use change is more specifically designated as the #2 sediment pond, buildings & pad area, fan and manway portal pads, powder & cap magazine area and the water tank area (locations are shown in Exhibit A). These facilities along with additional acreage will be donated by UEI to the College of Eastern Utah for the purposes of a science field camp. This post-mining land use is being promoted by the University of Utah's Center for Mine Land Redevelopment and is supported by the Emery County Board of Commissioners (Exhibit C).

Only those issues that remained outstanding are addressed in this technical memo.

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TECHNICAL ANALYSIS:

GENERAL CONTENTS

VIOLATION INFORMATION

Regulatory Reference: 30 CFR 773.15(b); 30 CFR 773.23; 30 CFR 778.14; R645-300-132; R645-301-113

Analysis:

Violation history is recited in Appendix 1-8 and was last updated in December of 1998. A revision to the violation history was received with this application.

Findings:

The information provided meets the requirements of the Regulations.

ENVIRONMENTAL RESOURCE INFORMATION

Regulatory Reference: Pub. L 95-87 Sections 507(b), 508(a), and 516(b); 30 CFR 783., et. al.

HISTORIC AND ARCHEOLOGICAL RESOURCE INFORMATION

Regulatory Reference: 30 CFR 783.12; R645-301-411.

Analysis:

Four brick buildings constructed during WWII (1940's) are located at the surface facilities: a shop, a warehouse, a bathhouse, and an office building. The proposal for post-mining land use change would entail transferring the ownership of the four buildings. As described in Exhibit D of the application, the buildings will be renovated for a science field camp. The external appearance of the buildings will not be changed. Exterior work to the buildings will consist of roof work, new gutters, fascia boards, cement work and clean up.

An unsigned, draft memorandum of agreement (Exhibit E) in the application includes a statement that the buildings are over 50 years old and may be of some interest to the State Historical Preservation Office (SHPO). Exhibit E also encourages CEU to contact SHPO prior to rehabilitation of the buildings (or demolition).

UEI's request for assistance in evaluating the buildings status (unsigned letter from UEI to Jim Dykman, Cultural Resource Coordinator at the Utah Preservation Office dated October 7, 2003) was answered with a letter from Mr. Dykman dated November 4, 2003, indicating no historic properties would be affected by the transfer. Mr. Dykman made this statement to indicate that the transfer of the ownership will not affect the status of the buildings and indeed, may offer greater protection for the buildings. The buildings are valued as an important part of the area's mining history. Some of the buildings have been recorded and are eligible for listing (personal communication with Jim Dykman on December 1, 2003).

The Division is obligated to obtain an accurate listing and record of the historic properties involved in the transfer. More in-depth information on the buildings was supplied as Attachment #1 "Cultural and Historic Resource Discussion," as required by R645-301-411.140. This narrative describes the history of the site and provides information on the structures remaining, including recent photographs of the structures. The locations of the structures are shown on Exhibit A-2.

Findings:

The information provided meets the Historic and Archaeological requirements of the Regulations.

SOILS RESOURCE INFORMATION

Regulatory Reference: 30 CFR 783.21; 30 CFR 817.22; 30 CFR 817.200(c); 30 CFR 823; R645-301-220; R645-301-411.

Analysis:

Appendix VII-8 of the MRP provides a substitute topsoil evaluation of the facilities area. The investigation involved five test pits along the northwest side of the county road, in the facilities area, between the fence and the shoulder of the road. The analytical data presented in Table 1 of Appendix VII-8 indicates the surface soils are sandy-loam with slightly alkaline pH values (8.1 – 8.4). However, this soil will remain in place and will not be affected by reclamation of the portal and rock dust bin.

This submittal explains in Exhibit D of Exhibit E that the soils to be used for reclamation of the portal will come from the existing pad. An additional section was added to the postmining land use application, entitled "Regrading, Reclamation, Stabilization and Revegetation Plan for Portal and Rock Dust Bin Post Mine Land Use Change (PMLU)." In this summary of reclamation, it is estimated that 34 cu yds of soil will be needed for the portal rock dust bin reclamation. This soil material will come from the rock dust bin area. A composite soil sample

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from the rock dust bin was analyzed by Brigham Young University Soil and Plant Analysis Laboratory on October 17, 2003 (and again on December 15, 2003 for texture). The analytical report indicates that the pH is 7.48; Electrical Conductivity is 0.58 dS/m and that the SAR is less than 1.0. Phosphorus (4.81 ppm) and potassium (67.20 ppm) were analyzed, but nitrogen was not. Soil texture was described as sandy loam.

The soils in the vicinity of the rock dust bin are suitable for use as substitute topsoil.

Findings:

The soils in the vicinity of the rock dust bin are suitable for use as substitute topsoil. The information provided meets the requirements of the Regulations.

MAPS, PLANS, AND CROSS SECTIONS OF RESOURCE INFORMATION

Regulatory Reference: 30 CFR 783.24, 783.25; R645-301-323, -301-411, -301-521, -301-622, -301-722, -301-731.

Analysis:

Affected Area Boundary Maps

Phase II Reclamation Bond Release Areas Horse Canyon Mine Dwgs No. II-4A through G (received September 3, 2003) show the 16.18 acres under consideration for post mining land use change.

Cultural Resource Maps

Appendix X-2 of the MRP contains archaeological/historical inventories of the area conducted in 1980 and 1986. Approximate locations of the sites inventoried are noted in Figure V-2 of Appendix X-2.

Existing Structures and Facilities Maps

Existing structures are shown on the Exhibits A-1, A-2, A-3 and A-4. Plate II-1B shows the facilities and structures pre-reclamation.

Existing Surface Configuration Maps

Existing surface configuration is shown on the Exhibits A-1, A-2, A-3 and A-4.

Surface Ownership Maps

Plate I-1 shows surface ownership.

Findings:

The information meets the Maps and Plans requirements of the Regulations.

OPERATION PLAN

PROTECTION OF PUBLIC PARKS AND HISTORIC PLACES

Regulatory Reference: 30 CFR784.17; R645-301-411.

Analysis:

An unsigned, draft memorandum of agreement (Exhibit E) in the application includes a statement that the buildings are over 50 years old and may be of some interest to the State Historical Preservation Office (SHPO). Exhibit E also encourages CEU to contact SHPO prior to rehabilitation of the buildings (or demolition).

Mr. Jim Dykman's (SHPO) letter to Mr. Marshall dated November 4, 2003 states there will be "no historic properties affected" by the transfer of ownership from UEI to CEU. Mr. Dykman made this statement to indicate that the transfer of the ownership will not affect the status of the buildings and indeed, may offer greater protection for the buildings. The buildings are valued as an important part of the area's mining history. Some of the buildings have been recorded and are eligible for listing (personal communication with Jim Dykman on December 1, 2003).

Attachment #1 "Cultural and Historic Resource Discussion" provides information on the remaining structures at the site, including photographs.

Findings:

The information provided meets the requirements for protection of historic places.

RECLAMATION PLAN

TOPSOIL AND SUBSOIL

Regulatory Reference: 30 CFR Sec. 817.22; R645-301-240.

Analysis:

Redistribution

An additional section was added to the postmining land use application, entitled "Regrading, Reclamation, Stabilization and Revegetation Plan for Portal and Rock Dust Bin Post Mine Land Use Change (PMLU)." In this summary of reclamation, it is estimated that 34 cu yds of soil will be needed for the portal and rock dust bin reclamation. The concrete portal collar will be buried three feet deep. The dust bin will be buried four feet deep. This cover material will come from the rock dust bin area. The size of the area to be regraded at the portal and rock dust bin is approximately 1100 square feet (0.025 acres).

Findings:

The information provided meets the requirements for topsoil redistribution in Reclamation.

RECOMMENDATIONS:

The proposal is recommended for approval.