

TECHNICAL MEMORANDUM

Utah Coal Regulatory Program

December 31, 2003

TO: Internal File

THRU: Pricilla Burton, Team Lead

FROM: David Darby, Senior Reclamation Specialist

RE: Horse Canyon Mine, Utah American Energy, Inc. C/007/0013, Task ID # 1785

TECHNICAL ANALYSIS

INTRODUCTION

SUMMARY:

This review evaluates the submittal revised by UIC on December 15, 2003. The Division first received this amendment on July 11, 2003 to the MRP (Task 1630) from Utah American Energy, Inc. requesting a change to the post mining land use for the disturbed areas remaining at the Horse Canyon Mine. The amendment was found to be deficient requiring the applicant to supplement the application with additional information. Another review (Task 1756) was completed on November 26, 2003.

Several areas of the Horse Canyon Mine have been reclaimed including pads and ditches behind the buildings, the coal refuse pile and the disturbed drainage ditch at the refuse site and Sedimentation Pond #2. Some areas known as the "excluded areas" were not reclaimed with the other areas. They were excluded from reclamation, because it was anticipated that they would be used in conjunction with operation with the Lila Canyon Mine, if it were to come into operation. They consist of the buildings, a portal and pad, a water tank, an old powder storage building and Sedimentation Pond #1.

The proposed change to the post mining land use will also involve a change in ownership of the property, as well as a change from industrial use to institutional/business use. The facilities will not be regulated under SMCRA after the land exchange.

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RECLAMATION PLAN

POSTMINING LAND USES

Regulatory Reference: 30 CFR Sec. 784.15, 784.200, 785.16, 817.133; R645-301-412, -301-413, -301-414, -302-270, -302-271, -302-272, -302-273, -302-274, -302-275.

Analysis:

The post mining land use will be changed from coal mining/industrial to residential/recreation. UtahAmerican plans to donate the property to the Center for Mine Land Redevelopment and/or the College of Eastern Utah, who will construct and run a science field camp for Utah universities.

The site is an ideal location for establishing a science camp because it sits in a central location to gain access to several unique locations. The geologic formations are well exposed in southeastern Utah, which reveal a long history of depositional environments. There are also several unique land features that can be seen and visited in a few hours travel. The Book Cliffs and Wasatch Plateau reveal a geologic history as old 300 million years.

One can stand on the rim of the Book Cliffs and see the San Rafael Swell, Wasatch Plateau and Henry Mountains. The San Rafael Swell rises above the Castle Valley desert floor to the south of Horse Canyon and exhibits canyons deeply carved into Early Mesozoic and Cretaceous formations. It was uplifted as a dome feature during the Laramide Orogenic period. Later periods of erosion carved the formations to reveal a clear view of the stratigraphic column. The Henry Mountains were also formed from intrusions during the Laramide Orogenic period. Laccoliths form the core of the mountain chain. Some ore deposits have been located in both uplifts and many varieties of fossils found in the varied sedimentary rock.

The Wasatch Plateau and Book Cliffs reveal many of the same formations and features. Coal mines are found in the Blackhawk Formation of the Wasatch Plateau and Book Cliffs and the Ferron Sandstone Member of the Mancos Shale in Castle Valley near Emery, Utah. Coal mining has been conducted in the area for over 100 years.

Findings:

The site is an ideal location for the post mining land use of a science field camp. It is recommended that the post mining land use for a Science Field Camp be approved.

HYDROLOGIC INFORMATION

Regulatory Reference: 30 CFR Sec. 784.14, 784.29, 817.41, 817.42, 817.43, 817.45, 817.49, 817.56, 817.57; R645-301-512, -301-513, -301-514, -301-515, -301-532, -301-533, -301-542, -301-723, -301-724, -301-725, -301-726, -301-728, -301-729, -301-731, -301-733, -301-742, -301-743, -301-750, -301-751, -301-760, -301-761.

Analysis:

Hydrologic Reclamation Plan

A change in the post mining land use to residential/recreation (science field camp) will relieve the mine from reclaiming most hydrologic structures that are associated with the minesite. The ditches, berms and silt fences can be used by the new owner, as they are currently used, but are not controlled as they would be under the coal program. UtahAmerican holds a UPDES permit associated with Sedimentation Pond #2. The Utah Division of Water Quality will not release UtahAmerican's UPDES permit unless UtahAmerican removes the decant and 10yr-24hr spillway.

In the most recent submittal of December 30, 2003, UtahAmerican has confirmed that the spillway/decant will be removed to ground level and filled with concrete, as shown in Drawing VI-4B-1, Spillway Section.

Findings:

This method of sealing is acceptable to both the Division of Water Quality and to the Division of Oil, Gas and Mining. The applicant has submitted sufficient information to address the minimum requirements of the Hydrologic Reclamation Plan on the Hydrologic Information Section of the regulations.

MAPS, PLANS, AND CROSS SECTIONS OF RECLAMATION OPERATIONS

Regulatory Reference: 30 CFR Sec. 784.23; R645-301-323, -301-512, -301-521, -301-542, -301-632, -301-731.

Analysis:

In the previous review the applicant was asked to provide information about the final disposition of the sedimentation pond that reflects the best option for reclamation. Final reclamation maps and cross-sections were required. The applicant has now submitted a cross-section of the final designs for reclaiming the spillway/decant in the sedimentation pond.

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Findings:

The applicant has submitted the sufficient information to address the minimum requirements of the Maps, Plans and Cross-sections of Reclamation Operations regulations.

RECOMENDATIONS:

The permit application package is complete. The hydrologic section recommended for approval.

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