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State of Utah

Department of Natural Resources

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September 20, 2006

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

Subject: Conditional Approval of Part A – Redesign of Ditch 31, Task ID #2642, UtahAmerican Energy, Inc. (UEI), Horse Canyon Mine, C/007/0013

Dear Mr. Marshall:

The revised design plans for channel reconstruction to repair erosional damage have been reviewed by the Division. The plans are conditionally approved as follows: The Division will require that field measurements be taken of the channel after construction, confirming that the approved design standards have been achieved. At least three as-built cross-sections and one longitudinal profile should be submitted of the repaired channel. The as-built drawing should be formatted to fit into the MRP. UEI is reminded that the vegetation standards as outlined in the approved MRP will also apply to those sections of the channel embankment that are reconstructed.

Please submit six clean copies prepared for incorporation by October 20, 2006. Once we receive these copies, final approval will be granted. A stamped incorporated copy of the approved plans will be returned to you at that time, for insertion into your copy of the Mining and Reclamation Plan. Enclosed is a CD of the Technical Analysis for the Horse Canyon Mine.

If you have any questions, please call me at (801) 538-5286, or Dave Darby at (801) 538-5341.

Sincerely,

D. Wayne Hedberg
Permit Supervisor

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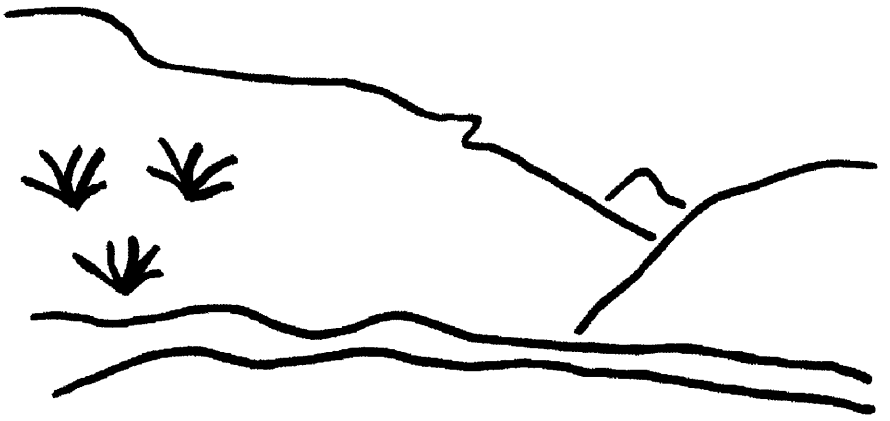
State of Utah



Utah Oil Gas and Mining

Horse Canyon Mine
UtahAmerican Energy, Inc.
C/007/0013
Technical Analysis
September 20, 2006

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TECHNICAL ANALYSIS DESCRIPTION

The Division ensures that coal mining and reclamation operations in the State of Utah are consistent with the Coal Mining Reclamation Act of 1979 (Utah Code Annotated 40-10) and the Surface Mining Control and Reclamation Act of 1977 (Public Law 95-87). The Utah R645 Coal Mining Rules are the procedures to implement the Act. The Division reviews each permit or application for permit change, renewal, transfer, assignment, or sale of permit right for conformance to the R645-Coal Mining Rules. The Applicant/Permittee must comply with all the minimum regulatory requirements as established by the R645 Coal Mining Rules.

The regulatory requirements for obtaining a Utah Coal Mining Permit are included in the section headings of the Technical Analysis (TA) for reference. A complete and current copy of the coal rules can be found at http://ogm.utah.gov

The TA is organized into section headings following the organization of the R645-Coal Mining Rules. The Division analyzes each section and writes findings to indicate whether or not the application is in compliance with the requirements of that section of the R645-Coal Mining Rules.

GENERAL CONTENTS

IDENTIFICATION OF INTERESTS

Regulatory Reference: 30 CFR 773.22; 30 CFR 778.13; R645-301-112

Analysis:

The MRP indicates that in July of 2000, UtahAmerican Energy, Inc. (UEI) purchased the Intermountain Power Agency (IPA) holdings associated with the Horse Canyon Permit ACT/007/013. Updated ownership and control information for UEI is presented in Appendix 1-7. This information is dated (11/7/03) and is being reviewed as part of the mid-term review (Task #1750).

Findings:

The information provided meets the Identification of Interests requirements of the Regulations.

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.

RIGHT OF ENTRY

Regulatory Reference: 30 CFR 778.15; R645-301-114

Analysis:

Page I-6A of the MRP indicates UtahAmerican Energy, Inc. (UEI) purchased the Intermountain Power Agency (IPA) holdings associated with the Horse Canyon Permit ACT/007/013 in July 2000. The assets purchased are outlined in a Quitclaim deed filed in the Emery County Court House on August 1, 2003. The MRP provides the following description of the assets purchased:

"All the federal coal leases that IPA controlled that were associated with the Horse Canyon/LilaCanyon Mines (SL-066490, U-014218, U-0126947, U-014217, SL-069291, SL-066145).

Approximately 1,600 acres of surface land and some fee coal lands.

The Horse Canyon Mine including all the surface facilities.

All associated water rights and rights-of-ways that IPA controlled."

Findings:

The information provided meets the Right of Entry requirements of the Regulations.

LEGAL DESCRIPTION AND STATUS OF UNSUITABILITY CLAIMS

Regulatory Reference: 30 CFR 778.16; 30 CFR 779.12(a); 30 CFR 779.24(a)(b)(c); R645-300-121.120; R645-301-112.800; R645-300-141; R645-301-115.

Analysis:

The area of post mining land use change is designated in the public notice and in Exhibit A of the application. The area encompasses 16.18 acres of the Horse Canyon Mine along the county road.

Findings:

The information provided is adequate to meet the legal description requirement of the Regulations.

PERMIT TERM

Regulatory References: 30 CFR 778.17; R645-301-116.

Analysis:

The Utah mining permit was transferred from IPA to UEI on December 22, 1998. The five-year permit term expires in December, 2003.

Findings:

The information provided is adequate to meet the permit term requirement of the Regulations.

PUBLIC NOTICE AND COMMENT

Regulatory References: 30 CFR 778.21; 30 CFR 773.13; R645-300-120; R645-301-117.200.

Analysis:

A copy of the public notice is included in Exhibit B. The notice will run for four consecutive weeks in both the Sun Advocate and the Emery County Progress.

Findings:

The information provided is adequate to meet the permit term requirement of the Regulations.

PERMIT APPLICATION FORMAT AND CONTENTS

Regulatory Reference: 30 CFR 777.11; R645-301-120.

Analysis:

On June 4, 1999, Plates II-4A through II-4G were submitted along with revised page II-2 and additional pages II-39 and II-39 as part of the Phase II bond release application. The Phase II bond release was conditionally approved on November 10, 1999, conditioned upon the removal of the culverts and sedimentation pond. The culvert and sedimentation pond work was inspected and determined complete on March 21, 2002. After which, final approval of Phase II bond release was given on April 11, 2000.

Plates II-4A through II-4G and the tabulations found on pages II-38 and II-39 (received September 3, 2003) establish the location and acreage of Phase II bond release and the remaining acreage to be affected by the post mining land use change.

Findings:

The information provided meets the requirements of the Permit Application Format and Content Regulations.

MAPS AND PLANS

Regulatory Reference: 30 CFR 777.14; R645-301-140.

Analysis:

Plate II-1A and II-1B of the MRP distinguish between pre-law (Aug 1977) and post-law disturbance. Exhibit A shows the location of the land to undergo postmining land use change. Exhibit E contains a map showing the location of all the land (896.13 acres) to be donated to the State of Utah/College of Eastern Utah. These areas all fall under post-law disturbance areas.

Findings:

The information provided is adequate for the purpose of the Maps and Plans 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.

PERMIT AREA

Regulatory Requirements: 30 CFR 783.12; R645-301-521.

Analysis:

The total permit area of 1,707.38 will be reduced by 896.13 acres upon the proposed donation of the acreage to the State of Utah/College of Eastern Utah (Exhibit E). The permit will then contain 811.25 acres. This reduction in permit area is reflected in the Table on pages II-39 of the MRP. Phase II bond release in April 2000 covered 40.9 acres. The remaining 222.7 acres is accounted for as follows: 0.1 acres of bridge abutements were returned to the county; the 6.5 acre borrow site was not redisturbed for topsoil substitute and will achieve Phase II and III bond release without further disturbance; leabind 16.1 acres of land to be donated to CEU in 2003 for use as a field institute. The 16.1 acre donation includes sediment pond #2, facilities area, manway portal area, magazine access road, magazine area, and water tank area. The manway portal will be reclaimed and all disturbed areas will achieve Phase I, II, and III bond release before the college takes over use of the property (personal communication with Jay Marshall on November 26, 2003).

Findings:

The information provided meets the requirements of permit area.

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 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.

LAND-USE RESOURCE INFORMATION

Regulatory Reference: 30 CFR 783.22; R645-301-411.

Analysis:

Chapter X, Section 10.3 of the MRP describes land use. Prior to mining, the land was used by wildlife and for access to grazing allotments.

Findings:

The information provided meets the Land-Use Resource Information requirements.

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

EXISTING STRUCTURES:

Regulatory Reference: 30 CFR 784.12; R645-301-526.

Analysis:

Ownership of all remaining structures at the Horse Canyon Mine will be transferred to the State of Utah/College of Eastern Utah to support the proposed residential/recreational post-mining land use. The submittal lists these facilities in Exhibit E as follows:

1) Sedimentation Pond #2 and associated drainage features
2) Pump House
3) Office Building
4) Bathhouse
5) Warehouse
6) Shop
7) Chain Link Fence
8) Building Pads
9) Parking Lot
10) Powder Magazine
11) Cap Magazine
12) Water Tank
13) Portal Pad.

Findings:

The information provided meets the requirements of the Regulations.

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

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 disturbed area is recorded as 63.6 acres, of which 51.56 acres have received Phase II bond release. These 51.56 acres have a wildlife postmining land use. The remaining acreage within the disturbed area (the mine facilities pad) along with additional acreage will have a post mining land use change from wildlife to residential/recreational. The area encompassed by the post mining land use change encompasses 16.18 acres. The land will be donated to the College of Eastern Utah for the purpose of a science field camp.

The application contains information indicating an interest by the Center for Mine Land Redevelopment and or the College of Eastern Utah for use as a science camp. A detailed evaluation of the area and structures has been conducted by the College and is contained in the application.

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 and Henry Mountains. The San Rafael Swell is located south of the site and exhibits canyons deeply carved into Early Mesozoic formations, uplifted as a dome feature during the Laramide Orogenic period. The Henry Mountains are intrusive laccoliths also of the Laramide Orogenic period.

The area surrounding the proposed science camp also contains several mineral and ecological resources. 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. The Ferron Sandstone Member is also a recently developed source of coal bed methane. There have been mineral mines developed in the past producing uranium in the San Rafael Swell, and gold mines in the Henry Mountains. These areas also reveal paleontological sites and archeological areas.

Findings:

The site is an ideal location for the post mining land use of a science field camp. Information submitted in the application indicates that the area can support the post mining land use of residential/recreational and that there is a reasonable likelihood for achievement of the post mining land use change on the 16.18 acres. The residential/recreational post mining land use change is a higher or better use for the 16.18 acres, while still providing 51.56 acres of reclaimed wildlife habitat.

PROTECTION OF FISH, WILDLIFE, AND RELATED ENVIRONMENTAL VALUES

Regulatory Reference: 30 CFR Sec. 817.97; R645-301-333, -301-342, -301-358.

Analysis:

The 51.56 acres of wildlife habitat that received Phase II bond release on April 12, 2002 is not affected by this post mining land use change.

Findings:

The information provided is adequate for the purposes of the regulations.

APPROXIMATE ORIGINAL CONTOUR RESTORATION

Regulatory Reference: 30 CFR Sec. 784.15, 785.16, 817.102, 817.107, 817.133; R645-301-234, -301-412, -301-413, -301-512, -301-531, -301-533, -301-553, -301-536, -301-542, -301-731, -301-732, -301-733, -301-764.

Analysis:

The application indicates that the main intake portal (south) or man way portal and the fan portal will have portions of the concrete portal collar removed. This concrete is to be hauled off site to an approved landfill. The fan portal also requires the removal of the temporary metal fan housing, which may be salvaged. The remaining concrete will be covered with a minimum of 3' of cover material. Both portals have been permanently sealed and backfilled.

A review of the approved MRP shows that no pre-mining contours are available do to the age of the mine site (approximately the 1940's). No comparison of pre mining and post mining contours can be made. During a site visit on March 26, 2003 by Division Personnel the portal area was viewed. It was the consensus of Division Personnel that once the concrete and metal are removed and the remaining concrete is covered with 3' of cover material that the area will

reflect the surrounding terrain and slopes in accordance with the regulations for approximate original contour. This evaluation was also compared with information contained in Directive Number: Tech-002, effective July 1, 1977. This comparison was done during the review of this application and conforms to the intent of the Directive.

The original application did not specify where the 3' of cover material would be obtained from to cover the portal area. In the new application the operator indicates that the cover material will come from the pad area adjacent to the portals. The cover material resource area needs has been identified in the application with an approximate volume of less than 15 yards.

The operator has also identified the reclamation of the buried rock dust bin. The material to reclaim the rock dust bin will also come from the pad area and will require approximately 19 yards.

The amount of material removed from the pad to due the reclamation work will lower the pad area by approximately two to three feet. Contours used on the drawings are in five foot intervals and will not reflect any change. The final surface configuration is shown on Exhibit A-3.

Exhibits A-1, A-2, A-3, and A-4 have been P.E. stamped, signed and dated as required.

Findings:

The information provided meets the requirements of the Regulations.

MINE OPENINGS

Regulatory Reference: 30 CFR Sec. 817.13, 817.14, 817.15; R645-301-513, -301-529, -301-551, -301-631, -301-748, -301-765, -301-748.

Analysis:

The main intake portal (south) or man way portal and the fan portal have been permanently sealed and backfilled. The portal collars remained for future access to the old workings.

Findings:

The portals have been sealed backfilled and abandoned in accordance with MSHA regulations. The operator has determined that future access to the mine through these portals is no longer feasible. The proposed post mining land use change will totally abandon these portals from future access.

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.

ROAD SYSTEMS AND OTHER TRANSPORTATION FACILITIES

Regulatory Reference: 30 CFR Sec. 701.5, 784.24, 817.150, 817.151; R645-100-200, -301-513, -301-521, -301-527, -301-534, -301-537, -301-732.

Analysis:

Retention

The application indicates the retention of the buildings and the public road that parallels the buildings. Page X-16 of the approved MRP indicates that this public road will be retained during mining and reclamation periods. Page X-16 has been revised in the application to give more detail of the public road course and to indicate the alternative post mining land use of residential/recreational. The post mining land use application will be located in Appendix X-4 upon approval.

Findings:

Retention of the public road that parallels the existing buildings is already approved in the MRP. Retention of the road correlates with the proposed alternative post mining land use of residential/recreational.

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

The Permittee meets the requirements of this section. A change in the post mining land use to residential/recreation (science field camp) will relieve the mine Permittee from reclaiming some of the 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. This method of sealing is acceptable to both the Division of Water Quality and to the Division of Oil, Gas and Mining.

The Refuse Pile and associated hydrologic structures remain as part of the disturbed area and will have to meet Phase III bond release standards. UtahAmerican Energy, Inc. (UEI) resubmitted plans on September 15, 2006 to reconstruct the Refuse Pile channel. A review of the reconstruction designs (Task 2611) submitted on August 31, 2006 identified an undisturbed area above the railroad tracks that had not been factored into the drainage equations.

The refuse channel (Channel #31) is part of the reclaimed area. A large storm on September 2005 storm eroded the channel, and repairs need to be made. There is a ten-year liability period on the channel that began in February 2002.

The Permittee has provided design calculations to for a 100 yr-6 hr precipitation event. The flow volume comes from three contributing drainages (A1, A2 and A3, shown on Figure 1) is calculated to be 20.3 cfs. Plans include cross-sections of the trapezoidal channel and reconstruction length. Cross-sections in Figure 2 and Plate VI-3 show 1.5 feet of riprap on a gravel filter. The riprap will be keyed into the channel sides, which are designed with 2:1 side slopes to match the existing embankments and channel gradient. Two grades of riprap will be used. A graded riprap with a D50 of 1.5 feet will be used where the designed channel is steeper (8:1) at the planned drop structure, and a D50 of 0.75 feet (9 inches) above and below the drop structure.

The riprap will be keyed in at the base of the channel to prevent it from being washed away during storms. Velocities have been calculated at 8.28 ft/sec at the drop structure and 5.8 ft/sec below the drop structure. These velocities are a little high, but should be controlled with the riprap. The riprap will be installed so it is two feet (vertical) above the base of the channel, providing a 1 ft freeboard for channel protection. The slope height of the channel is 2.25 feet. The riprap will be graded (rock of various size, between a D15 and D85) so it interlocks for a stable channel surface.

Findings:

The Permittee 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:

Affected area boundary maps

Drawing III-1A submitted for the amendment shows the area of reconstruction for the Refuse Pile culvert. The Permittee has submitted Figure 1showing the drainage area for the Refuse Pile channel.

Reclamation backfilling and grading maps

Drawing VI-3 and Figure 2 submitted in the amendment shows the cross-sectional area of the rebuilt channel. The proposed channel is trapezoidal in shape. Riprap will be placed on a grave filter. Channel detail is illustrated in Table 1 and Plate VI-3 showing a channel depth of one foot (1'), a base width of five feet (5') and 2:1 side slopes. The D50 riprap value is stated as 9" for the.

Findings:

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

REVEGETATION

Regulatory Reference: 30 CFR Sec. 785.18, 817.111, 817.113, 817.114, 817.116; R645-301-244, -301-353, -301-354, -301-355, -301-356, -302-280, -302-281, -302-282, -302-283, -302-284.

Analysis:

Revegetation: General Requirements[Sheila Mo26]

The MRP meets R645-301-353 through R645-301-356 because the MRP includes a reclamation plan and discussion of how the reclamation measures will meet the performance standards.

The request for a post-mine land use change for portions of the Horse Canyon Mine includes five major areas: sediment pond #2, building and pad area, fan and manway portal pad, powder and cap magazine area, and water tank area. Of these five areas, the Permittee plans to reclaim only the fan and manway portal area before the transfer.

Reclamation of the fan, manway portal, and rock dustbin includes dismantling and removing from the site the fan housing and concrete collars. The Permittee will fill and cover the resulting hole with three feet of material obtained from the rock dust pad. Material from the rock dust pad will also cover the rock dustbin by a minimum of four feet. Removal of material from the rock dust pad will lower the pad by less than two feet.

Revegetation: Timing[Sheila Mo27]

The MRP provides a timetable in Vol. IV, p. VIII-31.

Revegetation: Mulching and Other Soil Stabilizing Practices[Sheila Mo28]

Preparing the sites for seeding includes regrading, hand raking, and gouging. The Permittee will blend the interface between the disturbed and undisturbed areas to the same slope. The Permittee provided an updated final seed mix (November 13, 2003) and will incorporate this mix into the MRP, Vol. IV, p. VIII-38. The hand broadcast seeding rate will be at 100 PLS per square foot. The table below shows the updated seed mix for this project.

Grasses	
Agropyron spicatum	Blue bunch wheat grass
Elymus salinus	Salina wildrye
Oryzopsis hymenoides	Indian ricegrass
Sporobolus cryptandrus	Sand dropseed
Elymus cinereus	Great basin wildrye

Hilaria jamesii	Galleta grass
Forbs	
Sphaeralcea grossulariafolia	Gooseberry-leaf globemallow
Penstemon palmeri	Palmer penstemon
Linum lewisii	Blue flax
Artemisia frigida	Fringed sagebrush
Shrubs	
Artemisia tridentata	Basin big sagebrush
Atriplex canescens	Fourwing saltbush
Cowania mexicana	Cliff rose
Pershia tridentata	Antelope bitterbrush
Ephedra viridis	Green Mormon tea

Revegetation: Standards For Success[Sheila Mo29]

The R645 rules do not require productivity measurements for years nine and ten if the postmine land use is wildlife (refer to R645-301-356.230). The postmine land use for Horse Canyon Mine is wildlife. The Division informed the Permittee of this rule, but the Permittee presumably decided to go beyond the requirements and conduct productivity evaluations. The plan states that the Permittee will conduct the approved productivity method of wet and dry sampling (Sec. 8.4.2.6, p. VIII 44). Ocular estimate is not the approved method at bond release.

The Division will judge success based on the effectiveness and permanence of the vegetation for the approved postmine land use. The Permittee will meet success standards when plant cover (Sec. 8.4.2.6, p. VIII 42) and woody plant densities (Sec. 8.4.2.6, p. VIII 44) are not less than 90% of the standard at the 90% confidence level.

The Division authorized a change in woody plant density from 3,000 to 2,000 stems/acre (Sec. 8.4.2.6 p. VIII 45). DWR and the Division visited (April 2005) the reference area and reclamation sites (see King 2003, refer to numbers 3, 6, 7, 15, 17, 16, 11, 13, 14) and determined that the sites were adequately vegetated to meet the post mine land use of wildlife. The only concern was the amount of cheatgrass on sites 11, 13, and 14.

The Permittee commits to bring "diversity" within 90% of the standard.

The Permittee will measure diversity using the Jaccard's equation. In order to successfully meet similarity requirement of 70%, the Permittee must use life forms as the equation parameter not species. If the seed mix had been developed with the same or nearly the same species as those found in the reference area, then the Permittee could use species as the equation parameter.

The MRP infers that one of the success standards includes bringing life forms up to at least one tree or shrub, one forb, and two cool season grasses. Calculations from using the data from the King report (2003), show that the Permittee meets this standard as of June 2005.

Findings:

Information provided in the application is considered adequate to meet the minimum Revegetation section of the Reclamation Plan regulations.

STABILIZATION OF SURFACE AREAS

Regulatory Reference: 30 CFR Sec. 817.95; R645-301-244.

Analysis:

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 states that the area will be pocked and mulched with straw according to the approved MRP. The disturbance will be minimal and all run-off will report to sediment pond #2.

Findings:

The information provided meets the Stabilization of Surface Areas requirements of the regulations.

CESSATION OF OPERATIONS

Regulatory Reference: 30 CFR Sec. 817.131, 817.132; R645-301-515, -301-541.

Analysis:

On October 15, 1982, U.S. Steel informed the Division of Oil Gas and Mining that it was temporarily suspending mining operations at the Horse Canyon (Geneva) Mine. U.S. Steel informed the Division of its plans to permanently suspend mining operations in January 1984. The property was purchased by Kaiser Steel in November 1984 and acquired by Intermountain Power Agency (IPA) in April 5, 1990. Phase I reclamation work was conducted in 1991 by IPA on only 42% of the area, leaving the facilities area to retain the possibility of reopening the site (Phase I Bond Release Decision Document, February 5, 1997).

The change in post-mining land use for the facilities at the horse canyon mine will be permanent cessation of mining at this location. UEI will no longer secure, support and maintain surface facilities at this location (R645-301-515.300).

UEI is obligated under R645-301-541 to permanently reclaim all areas that are not suitable for the postmining land use. 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)."

Findings:

The information provided meets the requirements of R645-301-541.

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:

Bonded Area Map

Phase II Reclamation Bond Release Areas are shown on Dwg Nos. II – 4 A – G.

Reclamation Backfilling And Grading Maps

A review of the approved MRP shows that no pre-mining contours are available do to the age of the mine site (approximately the 1940's). The amount of material removed from the pad to due the reclamation work will lower the pad area by approximately two to three feet. Contours used on the drawings are in five foot intervals and will not reflect any change. The final surface configuration is shown on Exhibit A-3.

Reclamation Facilities Maps

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.

Certification Requirements.

Exhibits A-1, A-2, A-3, and A-4 have been P.E. stamped, signed and dated as required.

Findings:

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

BONDING AND INSURANCE REQUIREMENTS

Regulatory Reference: 30 CFR Sec. 800; R645-301-800, et seq.

Analysis:

General

Reclamation was completed on 42% of the disturbed area in 1991. Phase I bond release was granted on February 5, 1997 with the release of $812,276 and the retention of $1,137,726 in the bond. The current bond covers both the Horse Canyon Mine and the Lila Canyon Extension. So that, during Phase II Bond Release (achieved on April 11, 2002), the bond was reduced from $2,809,000 to $2,617,328.

An amount of $88,492 remains in the bond for the purpose of revegetation of the 51.56 acres in the event of revegetation failure during the remainder of the Permittee's liability period. An amount of $946,054 remains in the bond for reclamation of the unreclaimed disturbed area as well as the 51.56 acres (Division Decision Document October 19, 1999).

Form of Bond

Surety bond.

Findings:

The information on record with the Division is adequate for the purposes of the Regulations.