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State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

August 9, 2017

Karin Madsen, Resident Agent
UtahAmerican Energy, Inc.
P.O. Box 910
East Carbon, Utah 84520-0910

Subject: New Storage Pad/New BLM ROW, UtahAmerican Energy, Inc., Horse Canyon Mine, C/007/0013, Task #5495

Dear Ms. Madsen:

The Division has reviewed your application. The Division has identified deficiencies that must be addressed before final approval can be granted. The deficiencies are listed as an attachment to this letter.

The deficiencies authors are identified so that your staff can communicate directly with that individual should questions arise. The plans as submitted are denied. Please resubmit the entire application.

If you have any questions, please call me at (801) 538-5325.

Sincerely,

Daron R. Haddock
Coal Program Manager

DRH/sqs

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Technical Analysis and Findings

Utah Coal Regulatory Program

PID: C0070013
TaskID: 5495
Mine Name: HORSE CANYON MINE
Title: NEW STORAGE PAD/NEW BLM ROW

General Contents

Maps and Plans

Analysis:

The amendment meets the State of Utah R645 requirements for Maps and Plans.

A previous deficiency identified the need for the Plate names to match with the table of contents. Plates have been corrected to match Plates names listed in the table of contents.

jeatchel

Operation Plan

Mining Operations and Facilities

Analysis:

The amendment meets the State of Utah R645 requirements for Mining Operations and Facilities.

A previous deficiency requested that a description of the construction of the new storage pad and associated auxiliary roads be included. Plates 5-7D-1, 5-7D-2, and 5-7D-3 as well as narrative in pages 28 and 29 in chapter state that the storage pad will be constructed similarly to the middle and upper pads, with a covering of gravel. The associated auxiliary roads will be paved.

jeatchel

Hydrologic Diversion General

Analysis:

The application does not meet the State of Utah R645 requirements for Hydrologic Diversion General.

In the surface water control plan, the Permittee proposes to slope all areas to drain to surface ditches/culverts for runoff to be carried to two sediment ponds. The sedimentation and control plan is presented in Appendix 7-4. Design of drainage control structures is presented in Section 2 of Appendix 7-4. All undisturbed culverts, UC-1 and UC-1a, are designed for 100 year – 6 hour precipitation event which is oversized for a temporary diversion. Currently, UC-1 is used to control the majority of the undisturbed site runoff. The Permittee proposes to construct a new 60” culvert (UC-1a) from the inlet location of UC-1 and under the Sediment Pond #1, then attaching UC-1 near the spillway structures. At final reclamation, all sections of the culvert will be removed. Design Summary for UC-1/UC-1a is presented in Table 10,

construction details in Figure 44 and 4A, and design narrative is discussed on pages 10-11 of Appendix 7-4. Disturbed area culvert calculations and design criteria are presented in Table 9. All ditches are designed to carry a 10 year – 6 hour precipitation event. Table 8 provides the ditch design summary and Figure 3 provides the typical cross-section design. Ditches will be designed with 2H:1V slope. Ditches expecting flows greater than 5fps will be lined with riprap to prevent erosion. Ditches are temporary and will be reclaimed. The Permittee does not provide the calculations for ditches, culverts, and watershed peakflow.

Deficiencies Details:

The application does not meet the State of Utah R645 requirements for Diversion General. The following deficiency must be addressed prior to final approval:

R645-301-711.300: The Permittee must provide the ditch and culvert calculations, and watershed peakflow calculations. These calculations were provided in the previous submittal. These calculations must be included in the amendment clean copies for final approval.

aumarva

Hydrologic Sediment Control Measures

Analysis:

The application meets the State of Utah R645 requirements for Sediment Control Measures.

The Permittee provides specifics for the sedimentation and drainage control plan in Appendix 7-4. Design parameter specifics are provided in Section 2 or Appendix 7-4. The Watershed Map and Proposed Sediment Control maps are presented in Plates 7-2 and 7-5, respectively. The permittee also includes a map identifying water monitoring locations and UPDES outfalls in Plate 7-4a. The sediment control map clearly presents existing sediment controls and newly proposed features for the site. However, DD-11a is not pictured on Plate 7-5.

Deficiencies Details:

The application does not meet the State of Utah R645 requirements for Sediment Control Measures. The following deficiency must be addressed prior to final approval:

R645-301-731, -731.720: The Permittee must update Plate 7-5 to include all sediment control measures, namely DD-11a, which is currently labelled but not drawn. The Permittee must also include a Township-Range spatial reference grid on Plate 7-5, 6a, and 6b.

aumarva

Hydrologic Siltation General

Analysis:

The application meets the State of Utah 645 requirements for the Siltation Structures: General.

The Permittee has proposed the construction of two sediment ponds for this site. All disturbed area runoff will be directed to these ponds for final treatment before discharging. No other siltation structures are proposed. Plan details are presented in Appendix 7-4.

aumarva

Hydrologic Siltation Sedimentation

Analysis:

The application meets the State of Utah R645 requirements for Siltation Structures: Sedimentation Ponds.

The permittee proposes to construct two sediment ponds for this site. The ponds are considered temporary and will be removed at final reclamation. The sediment ponds are sized to contain and treat runoff from all of the disturbed area and

any contributing undisturbed area for a 10 year – 24 hour precipitation event. Both ponds are to be equipped with a decant, a culvert principal spillway, and an emergency culvert spillway constructed to safely pass a 25 year- 6 hour precipitation event per R645-301-742.223. Sediment Pond #1 spillway will discharge into to UC-1, then into an engineered discharge structure, and finally into Right Fork of Lila Canyon. Sediment Pond #2 spillways will discharge into an engineered discharge structure then into the Middle Fork of Lila Canyon. Discharge structures are to be designed with a rip-rap apron to prevent scouring and erosion.

aumarva

Hydrologic Discharge Structures

Analysis:

The application does not meet the State of Utah R645 requirements for Hydrologic Discharge Structures.

The amendment provides in Table 8 of Appendix 7-4 summary of the diversions. All diversions with a calculated peak velocity greater than 5 fps are to be equipped with rip rap. On Plate 7-6a, the Permittee provides the typical diversion ditch cross-sections for each unique configuration for the calculations presented in Table 8. The permittee states there is sufficient detail of the discharge structure at UC-1 and the outlet protection in Figures 4 and 4A, however these Figures are not included in this amendment. Design information is provided in Table 10 and Section 2.10 on page 10 of Appendix 7-4.

Deficiencies Details:

The application does not meet the State of Utah R645 requirements for Hydrologic Discharge Structures. The following deficiency must be addressed prior to final approval:

R645-301-731: The Permittee must provide all maps and cross-sections for UC-1 and UC-1a, outlet protection design, rip-rap chart, and culvert nomograph. In the previous submittal for this amendment, the Permittee included these figures as Figure 1, 2, 3, 4, 4a, and 7.26 in the amendment, as referenced on Page 3 of Appendix 7-4. The Permittee must continue to include these Figures in the amendment.

aumarva

Hydrologic Ponds Impoundments Banks Dams

Analysis:

The application meets the State of Utah R645 requirements for Ponds, Impoundments, Banks, Dams, and Embankments.

The amendment contains a detailed narrative in Appendix 7-4, starting on page 42. Calculations, crosssections, and maps of the proposed sediment ponds are also included in this section. The size and configuration of the sedimentation ponds are adequate for the intended purposes with designs build to contain runoff from a 10 year-24 hour precipitation event. Additional design details for the ponds are presented on Plate 7-5, Plates 7-6a for Sediment Pond 1 and Plate 7-6b for Sediment Pond #2

aumarva

Maps Monitoring and Sampling Locations

Analysis:

The application meets the State of Utah R645 requirements for Maps of Monitoring and Sampling Locations.

The Permittee presents Plate 7-4a for Water Monitoring Locations. This map identifies mine discharge points, sedimentation ponds, surface area disturbance boundary, and key facility elements.

aumarva

Reclamation Plan

Hydrological Information Reclamation Plan

Analysis:

The application meets the State of Utah R645 requirements for Hydrologic Reclamation Plan.

The permittee provides a narrative of reclamation phases in Section 4 of Appendix 7-4. During Phase 1 of reclamation, the permittee proposes to remove all drainage controls except the sediment ponds, UC-1/1a, reclaimed ditches RD-1 and RD-2 (to be installed during reclamation), and temporary silt fences and straw bales. At Phase II Bond Release, the permittee plans to have all upstream sediment controls removed, including RD-1 and RD2. The permittee plans to leave a portion of UC-1 in place as a permanent drainage control beneath the road. This section is adequately sized with plans to equip with an inlet section and rip-rapped high wall. Both sediment ponds will be removed, regarded, and reseeded. The embankment for Sediment Pond #1 will remain. Post-mining hydrology is presented in Plate 7-7. The permittee plans to construct a channel at an approximate 4% grade to intercept the inlet of the UC-1 culvert at its intersection of the road.

aumarva

Bonding and Insurance General

Analysis:

The amendment does not meet the State of Utah R645 requirements for Bonding and Insurance General. The following deficiency must be addressed prior to final approval:

Deficiencies Details:

R645-301-820.100, R645-301-820.111, and R645-301-820.112: A previous deficiency asserted that additional bonding must be provided to account for the costs of reclaiming the new storage pad and associated access and service roads. The amendment did not address updating the bond for the addition of the new storage pad and access roads. In fact, the cover letter plainly stated that bonding would not be addressed due to a "Bonding Submittal that was approved May 9, 2017." The bonding submittal approved May 9, 2017 did not address the new storage pad and access roads. Permittee will need to provide the detailed red lined calculations in the bonding sheets and update the total posted bond if necessary.

jeatchel