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DEPARTMENT OF NATURAL RESOURCES

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FINDINGS DOCUMENT
Utah Coal Regulatory Program

PID: C0070013
TaskID: 4406
Mine Name: HORSE CANYON MINE
Title: MIDTERM PERMIT REVIEW

General Contents

Identification of Interest

Analysis:

The Ownership and Control found in Volume 1, Appendix 1-1 of the MRP was updated on September 17, 2012 and incorporated into the MRP on October 30, 2012. The Ownership and Control in the MRP was compared to the Applicant Violator System and no violations or anomalies were found.

An AVS Evaluation of the permit was generated on 10/17/13. No violations were retrieved in the system.

ssteab

Reclamation Plan

Bonding Determination of Amount

Analysis:

DETERMINATION OF BOND AMOUNT

Analysis:

The last Mid-term permit review (Task ID # 3042) for the Horse Canyon Mine, Permit Area B (also known as the Lila Canyon Mine) was conducted beginning in September 2008 with completion occurring in April 2009.

Two permit amendments which required an adjustment to the reclamation cost were approved following Task ID # 3042. These were Task ID # 3705, Ventilation Breakouts and Task ID # 3863, Response to N10086 (Permit Bulk Rock Dust Tank).

The Total Cost of the Reclamation at the Lila Canyon Mine was determined to be \$ 1,816, 241 in 2011 dollars (includes both Direct and Indirect costs).

The escalation factor for 2011 was .017; escalating this number for 3 years (1.017 X 1.017 X 1.017) = 1.052.

Escalating the Total Cost X 0.052 = \$94,445.00.

The Total Reclamation Cost including escalation to 2013 dollars is \$ 1, 910,686.00.

As is previously noted, the last reclamation cost estimate for the Lila Canyon Mine was made in 2008, using unit cost data from the 2008 R.S. Means Heavy Construction Data manual.

The assessed reclamation cost is approximately \$ 112,000 short of meeting the required bond amount in 2013.

The Permittee must update the reclamation cost estimate using 2013 R.S. Means Heavy Construction cost data, and

escalate that estimate through 2018 to determine the amount of additional bond which must be posted with the Utah Division of Oil, Gas and Mining and the U. S. Office of Surface Mining Reclamation and Enforcement.

Deficiencies Details:

Item E Evaluate the Reclamation Bond

In accordance with the requirements of R645-301-830, 830.140;

Findings:

The Permittee must update the unit costs used to develop the 2008 reclamation cost estimate using 2013 R.S. Means unit costs from their Heavy Construction Data manual.

That total, including direct and indirect costs, must be escalated to 2018 using the current 2013 escalation factor of 1.5 % to determine the bond amount required to be maintained to keep the Lila Canyon Mine in compliance relative to R645-301-830.140.

phess

Operation Plan

Fish and Wildlife Protection and Enhancement Plan

Analysis:

On October 2, 2013 the Division notified Utah American Energy, Inc. of the initiation of the Midterm Review. The following items were included:

- A. Review of the Plan to ensure that the requirements of all permit conditions, division orders, notice of violations (NOV), abatement plans, and permittee-initiated Plan changes approved subsequent to permit approval or renewal (whichever is the most recent) are appropriately incorporated into the Plan document.
- B. Ensure that the Plan has been updated to reflect changes in the Utah Coal Regulatory Program which have occurred subsequent to permit approval or renewal.
- C. Review applicable portions of the permit to ensure that the Plan contains commitments for application of the best technology currently available (BTCA) to prevent additional contributions of suspended solids to stream flows outside of the permit area.
- D. Evaluate the compliance status of the permit to ensure that all unabated enforcement actions comport with current regulations for abatement; verify the status of all finalized penalties levied subsequent to permit issuance or permit renewal, and verify that there are no demonstrated patterns of violation (POV). This will include an AVS check to ensure that Ownership and Control information is current and correct.
- E. Evaluate the reclamation bond to ensure that coverage adequately addresses permit changes approved subsequent to permit approval or renewal, and to ensure that the bond amount is appropriately escalated in current-year dollars.
- F. Evaluate the permit for compliance with variances or special permit conditions.
- G. Optional for active mines, mandatory for reclamation only sites: conduct a technical site visit in conjunction with the assigned compliance inspector to document the status and effectiveness for operational, reclamation, and contemporaneous reclamation practices undertaken on predetermined portions of the disturbed area to minimize, to the extent practicable, the contribution of acid or toxic materials to surface or groundwater, and to otherwise prevent water pollution.

This memo will include a review of items A and G.

The current mining and reclamation for the Lila Canyon mine includes approximately 34 commitments many of which have been completed. Members of the review team have updated the list in accordance with their respective disciplines.

R645-301-322, -301-333, -301-342, -301-358.

BLM MEMORANDUM OF AGREEMENT FOR RECOVERY OF SIGNIFICANT INFORMATION (42EM2517) BLM, OSM, DOGM, and SHPO will enter a MOA to implement a recovery plan.

STATUS Completed

COLORADO RIVER FISH Water depletion reporting for the CO River endangered fish Recovery Implementation Program.

STATUS Data regarding acre feet per year of consumed water is provided annually.

CONFIDENTIAL Submit confidential information in amendments, annual reports, and explorations in a separate folder.

STATUS Ongoing

HABITAT ENHANCEMENT AND MITIGATION Install two artificial eagle nests in consultation with USFWS.

STATUS According to the text on page 10, of Chapter 3 the eagle nests were to be mitigated by a prey base off-site vegetation treatment project with a reference to page 19. The reference needs to be corrected to pages 11, 17 and 18. The vegetation treatment is scheduled to be completed in the fall of 2013.

HABITAT ENHANCEMENT AND MITIGATION Implement the BLM 70+-acre wildlife enhancement/mitigation plan to offset expected impacts to bighorn sheep as well as mule deer, elk, raptors, and chukars from the initial construction of the main facilities site.

STATUS To be completed in the Fall of 2013

HABITAT ENHANCEMENT AND MITIGATION Install 2 guzzles as part of the BLM enhancement/mitigation plan to offset expected impacts to bighorn sheep as well as mule deer, elk, raptors, and chukars from the initial construction of the main facilities site.

STATUS Completed in 2013 Permittee should provide verification in the annual report.

HABITAT ENHANCEMENT AND MITIGATION Install two artificial eagle nests in consultation with USFWS.

STATUS Not required could be deleted, see Chapter three, Page 17, Paragraph 1.

MEXICAN SPOTTED OWL Conduct two-year calling survey at least two years but no more than four years prior to undermining identified habitat. Results will be submitted to USFWS, DWR, and the Division immediately following of each nighttime survey. If owls are observed, the agencies will immediately coordinate to determine appropriate measures.

STATUS The two required surveys have been completed, the second survey was completed in 2013 and will be submitted in the annual report that is due by March 31, 2014.

RAPTOR AND NEST PROTECTION For possible subsidence impacts to raptor nests, the Permittee will develop a mitigation plan that must be submitted and approved within 6 months after issuance of permit and apply for take permit through USFWS 2 years prior to subsidence of the nests.

STATUS The mitigation is scheduled to be completed in the Fall of 2013. The permittee needs to identify which nests are being referred to (previously identified or from future surveys). If nests are identified through aerial surveys the permittee must apply for take permit through USFWS 2 years prior to subsidence of the nests.

RAPTOR PROTECTION Employee educational to remove road kill from the coal haul road.

STATUS Ongoing, the permittee needs to correct the pagination error that begins at the bottom of page 20. The employee awareness program should include annual and as needed training and as needed as well as text that describes the removal of animal carcasses.

RAPTOR PROTECTION Escarpment barrier of at least 200' to prevent cliff habitat loss.

STATUS The text of Chapter three, page 13, Section 332 (1) needs to be revised or clarified to demonstrate how the 200' barrier will be measured.

RAPTOR SURVEYS Survey all raptor habitat and nests.

STATUS Ongoing annually for nests within 1 mile of the current disturbed area or areas that may be impacted by subsidence.

SEED MIX TAGS Provide the Division biologist with seed mix tags prior to or during interim, contemporaneous, and final reclamation projects.

STATUS The division is recommending that the topsoil pile and disturbed areas not being utilized for mining activities be scarified and seeded in the Fall of 2013 to minimize the current infestation of hallogeten. Seed tags should be provided to the inspector.

SENSITIVE PLANTS Survey the Cliff's blazing star, canyon sweetvetch, and creutzfeldt-flower. Initiate and implement a protection/mitigation plan if surveys are positive.

STATUS Completed

SENSITIVE PLANTS Implement a protection program for known populations of canyon sweetvetch during construction of the main facilities site.

VEGETATION MONITORING Color infrared photography. Submit and implement a mitigation plan, if results indicate impact from operations.

STATUS The next survey is scheduled for 2016

VEGETATION TEST PLOT To test whether summer seeding will increase establishment of the warm season species (blue grama and galleta). Area 1 and 4 were seeded in July and area 2 and 3 were seeded in October following construction.

STATUS The Division needs to meet with the permittee in the Spring of 2014 to visit the test plot areas and discuss the information provided in the 2012 annual report to determine what recommendations should be made regarding the warm species seeding of blue gramma and galleta.

WILDLIFE Adhere to wildlife exclusionary periods: raptors (Feb 1 - July 1), bighorn sheep lambing, (May 1 - June 15), and pronghorn (May15 – June 20)

STATUS Ongoing, applies primarily to new construction or surface disturbance

NOXIOUS WEED CONTROL To control invasive species in and adjacent to the disturbed area. The permittee should implement a noxious/invasive species weed control program.

STATUS The Division is recommending that this commitment be added to the Lila Canyon MRP list of commitments. The regulatory basis is found at R645-301-357.320-.324. The permittee needs to address the current infestation of hallogeten and Russian thistle in these areas. The Division has recommended scarifying and seeding in the Fall of 2013 and spraying based on a site inspection in the Spring of 2014.

STATUS Completed

Deficiencies Details:

The information in the current MRP is not adequate to meet the requirements of this section of the regulations. Prior to approval the following information is required in accordance with;R645-301-322, -301-333, -301-342, -301-358.

MRP COMMITMENTS

HABITAT ENHANCEMENT AND MITIGATION Install two artificial eagle nests in consultation with USFWS.

STATUS According to the text on page 10, of Chapter 3 the eagle nests were to be mitigated by a prey base off-site vegetation treatment project with a reference to page 19. The reference needs to be corrected to pages 11, 17 and 18. The vegetation treatment is scheduled to be completed in the fall of 2013.

RAPTOR AND NEST PROTECTION For possible subsidence impacts to raptor nests, the Permittee will develop a mitigation plan that must be submitted and approved within 6 months after issuance of permit and apply for take permit through USFWS 2 years prior to subsidence of the nests.

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RAPTOR PROTECTION Employee educational to remove road kill from the coal haul road.

STATUS Ongoing, the permittee needs to correct the pagination error that begins on page 20. The employee awareness program should include annual training and as needed as well as text that describes the removal of animal carcasses.

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STATUS The text of Chapter three, page 13, Section 332 (1) needs to be revised or clarified to demonstrate how the 200' barrier will be measured.

SEED MIX TAGS Provide the Division biologist with seed mix tags prior to or during interim, contemporaneous, and final reclamation projects.

STATUS The division is recommending that the topsoil pile and disturbed areas not being utilized for mining activities be scarified and seeded in the Fall of 2013 to minimize the current infestation of hallogeten. Seed tags should be provided to the inspector.

VEGETATION TEST PLOT To test whether summer seeding will increase establishment of the warm season species (blue grama and galleta). Area 1 and 4 were seeded in July and area 2 and 3 were seeded in October following construction.

STATUS The Division needs to meet with the permittee in the Spring of 2014 to visit the test plot areas and discuss the information provided in the 2012 annual report to determine what recommendations should be made regarding the warm season seeding of blue grama and galleta spp.

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jhelfric

Topsoil and Subsoil

Analysis:

Item A

The only permit condition relative to the Engineering discipline is the following;

"UEI will evaluate the condition of the slope (the slope between the east edge of the shop pad and the portal road) after road construction and label the slope either "disturbed" or "undisturbed" on an "As-Built" site map".

Findings:

The Permittee addressed the requirement of this permit condition and has updated the MRP accordingly. This permit condition has been completed.

Topsoil and Subsoil

Analysis:

Plate 5-2 presents the final site development plan and shows the location of the topsoil stockpile. There will be two phases of topsoil removal (Section R645-301-232.600). The first phase was completed in 2009. The Topsoil and Movement Construction Record provided with the 2009 annual report recorded 20.29 acres disturbed to date and 13.54 acres to be disturbed during the next phase of construction.

The topsoil stockpile now contains 62,373 cu yd of soil (Addendum to the 2010 Annual Report: Topsoil Removal Table as of July 2010). The north side of the topsoil pile was hydroseeded and hydromulched in March 2010, see Insp Rpt #2317. Desirable vegetation is well established on the north side of the topsoil stockpile, see Insp Rpt #3574. The south side of the topsoil stockpile was broadcast seeded following rough grading in December 2010, with less success. The south side of the stockpile was not pocked and is not at its final configuration.

The MRP states in Section 232.600 that the topsoil will be removed in two Phases and that... "the timing between phases is undetermined at this time." The phased construction should not preclude follow through on statements in Section 234.230 that the topsoil stockpile will have an irregular, pitted surface and will be mulched and seeded (and treated with inoculum) and have a silt fence at the base. The south half of the topsoil stockpile requires final treatment as soon as possible, regardless of the progress of construction. The Division suggests that a deadline for completion of topsoil pile construction be set for late fall (late November - mid-December) 2014.

Deficiencies Details:

R645-301-251, The phased construction plan should not preclude follow through on statements in Section 234.230 that the topsoil stockpile will have an irregular, pitted surface and will be mulched and seeded (and treated with inoculum) and have a silt fence at the base. The south half of the topsoil stockpile requires final treatment as soon as possible, regardless of the progress of construction. The Division requests that the MRP include a deadline for completion of topsoil pile construction and that the deadline be set for late fall (late November - mid-December) 2014.

pburton

Hydrologic General

Analysis:

During discussions with Jay Marshall in July 2013, it was decided that clarifications needed to be made to the water monitoring section of the MRP. Specifically with regards to water monitoring sites that were previously approved for temporary suspension of water monitoring activities.

The permittee was under the impression that monitoring location L-20-G (Quaker Spring) was included in the approval of sites for temporary suspension. The MRP currently is unclear on the matter so it was agreed that the MRP should be updated to more clearly define the current water monitoring plan.

Deficiencies Details:

Item A

R645-301-700-731.214 The MRP should be updated in the following sections to more clearly define the current water monitoring plan:

Page 56 of Chapter 7 should be updated to reflect the current monitoring plan for Quaker Spring now that baseline data collection has been completed.

Section 731.224.2 should be updated to clarify which sites are temporarily suspended.

Table 7-3 should be updated to indicate the current water monitoring plan for Quaker Spring.

adaniels

Maps Facilities

Analysis:

Plate 5-2, Plate 2-3 and Plate 1-2 do not agree on the undisturbed area boundary within the permit area. These plates were evaluated for accuracy during the mid-term inspection on 10/22/2013. In addition, site development and site portrayal on Plate 5-2 are incongruous. Placement of an aerial photo layer over the Plate 5-2 design could adequately show existing

conditions compared with future approved construction. This solution was discussed during the mid-term inspection.

Deficiencies Details:

R645-301-121.100, Plate 5-2 should reflect current site conditions with regard to shading of the disturbed area within the permit boundary. Placement of an aerial photo layer over the Plate 5-2 design would enable distinction between existing conditions and future approved construction depicted on the map.

pburton