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Technical Analysis and Findings
Utah Coal Regulatory Program

February 5, 2016

PID: C0070039
TaskID: 5029
Mine Name: DUGOUT CANYON MINE
Title: MIDTERM COMPLETION RESPONSE

General Contents

Identification of Interest

Analysis:

The mid-term response meets the State of Utah R645 requirements for Identification of Interests. The previous analysis had identified a deficiency in the ownership and control sections of the Dugout Mining and Reclamation Plan (MRP). The Permittee was directed to remove references to Arch Coal, Inc. The Permittee has revised the information and removed references to Arch Coal, Inc.

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Environmental Resource Information

General

Analysis:

The following is a review of conditions and activity at Dugout Coal Mine to ensure that all regulations under R645-301-300 (Biology) and R645-301-400 (land use) of the permit are being implemented as designed in the MRP.

In the essence of time, all requirements and commitments that are being fulfilled may not have not been discussed herein. The omission of that discussion indicates compliance with the regulations and MRP.

A technical site visit was made on September 10, 2015.

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Fish and Wildlife Resource Information

Analysis:

The fish and wildlife information provided in the MRP (Ch. 3 Section 322 and Appendix 3-3, (REVISED FINAL FISH AND WILDLIFE PLAN FOR THE PROPOSED SAGE POINT-DUGOUT CANYON PROJECT AREA)) was evaluated and compared to current species listed as found on the U.S. Fish and Wildlife Service Information for Planning and Conservation (IPaC) website. Although most information is still pertinent, the current plan was developed in August 1981 and does not address current species listed. The Division provided the Permittee with an updated list to be incorporated into the MRP to

satisfy requirements of R645-301-322.

Deficiencies Details:

Information provided in the application is not considered adequate to meet the minimum requirements of the regulations. The permittee must amend the MRP (Chapter 3, Appendix 3-3 and Attachment 3-2) to include a current T&E species list. Species that are currently listed and not analyzed in the MRP include the Western Yellow-Billed Cuckoo (Threatened). The Mexican spotted owl is also listed but has been adequately addressed in the Degas Volumes of the MRP. The Greater sage-grouse is a state sensitive species that requires additional protection measures pursuant to R645-301-322.320 and 322.230.

Ireinhart

Operation Plan

Fish and Wildlife Protection and Enhancement Plan

Analysis:

Because the existing MRP does not address Western Yellow-Billed Cuckoo or Greater sage-grouse, the plan does not provide adequate protection measures for these species. As required by the U.S. Fish and Wildlife Service, the area must be analyzed for Western Yellow-Billed Cuckoo in accordance with Section 7 of the Endangered Species Act. The survey protocol has been provided to the Permittee.

The protection of raptors by conducting raptor surveys is outlined on page 3-20 of the MRP. Furthermore (page 3-31) states each nest and its corresponding occupant and circumstances will be evaluated nine months or the summer prior to the period of potential subsidence. However, information provided in recent annual reports indicates surveys are conducted annually only to account for known nest locations and not for potential nests in subsidence areas.

Deficiencies Details:

R645-301-333. The Permittee shall provide a description of how mining operations will not impact any Threatened or Endangered Species, specifically Western Yellow Billed Cuckoo. The Permittee has satisfied this requirement for the Mexican Spotted Owl. IF the Permittee can demonstrate that Western Yellow Billed Cuckoo habitat does not exist within the permit area using USFWS protocol, this requirement shall be void.

R645-301-330. The MRP must be amended to include a plan for protection of greater sage-grouse.

R645-301-322.220. The raptor surveys must be conducted according to commitments made in the MRP. If subsidence is not occurring due to mining methodology, the surveys should provide such explanation. Maps must illustrate where nest locations are in relation to areas of subsidence (both past and future).

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Topsoil and Subsoil

Analysis:

Analysis:
The information provided meets the requirements of R645-301-230 soils handling operations plan, because MRP Section 233.200 is current with regard to sampling and analysis of Pace Canyon stockpiled soil. The MRP is current with regard to the description of topsoil stockpiles for Pace Canyon. The MRP Section R645-301-231.400 Table 2-2, and Appendix 2-9, Figure 2 as-built map are current with regard to as built topsoil stockpile information for Pace Canyon. Figure 2 shows the configuration of the two topsoil stockpiles in Pace Canyon which together hold 3,159 CY and cover 0.43 acres at an average depth of five feet.

In accordance with MRP Section 234.200 the Permittee reports, in the mid-term deficiency response, that the topsoil stockpile stored at the Soldier Canyon location was mechanically treated for [cheatgrass] weeds in the fall of 2014 and the soil was re-seeded and is being monitored.

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Hydrologic Ground Water Monitoring

Analysis:

The amendment does not meet the State of Utah R645 requirements for Ground Water Monitoring.

Groundwater monitoring well GW-11-2 has been monitored from 1997 through 2015. This well was completed in the Price River formation. Between 1997 and 2007, the well water levels were fairly consistent, and there appears to be no impact to the water levels from mining. In late 2007, it appears that the well casing sheared and the water levels are no longer accessible.

Dugout has one other water monitoring well, GW-10-2, located north west of well GW-11-2, near the Pines Canyon Creek. GW-10-2 has been monitored as long as GW-11-2, and is still functioning. GW-10-2 was completed in the Castlegate formation and has seen groundwater levels dropping since 2007.

The Permittee submitted an update to page 7-14 of the MRP that would remove well GW-11-2, however, the operational groundwater monitoring section was not updated. Also, other than just explaining that the well was no longer operations, there was no other justification provided as to why a groundwater well in that area is not necessary. The Permittee needs to update the correct sections of the MRP to remove this well from the monitoring program, and provide further justification.

Deficiencies Details:

R645-301-731 The operational groundwater monitoring section of Chapter 7 (section 731.200) must be updated to reflect the discontinued monitoring of GW-11-2. Plate 7-1 should also be updated to reflect the changes to the monitoring program.

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Reclamation Plan

Bonding Determination of Amount

Analysis:

The Permittee provided an updated Appendix 5-6 to address R645-301-830.410. The Permittee included an increase in in demolition and removal to \$676,943 by updating all demolition line items to 2015 R.S. Means Heavy Construction Cost index. The Permittee also updated the re vegetation cost to 2015 unit cost to a new total of \$440,478. The Permittee was not able to get a hold of 2015 Equipment Watch Blue Book Rental and was not able to update the unit costs of the equipment. The Division will work with the Permittee to provide the line item costs for the re submittal of the midterm.

Deficiencies Details:

R645-301-830.140: The Permittee was not able to get a hold of 2015 Equipment Watch Blue Book Rental and was not able to update the unit costs of the equipment. The Division will work with the Permittee to provide the line item costs for the re submittal of the midterm.

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