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Technical Analysis and Findings
Utah Coal Regulatory Program

PID: C0070033
TaskID: 4643
Mine Name: WILDCAT LOADOUT
Title: OIL TRANSLOADING CONSTRUCTION

Summary

Task ID # 4643 is inadequate and the entire application should be returned to the permit applicant for insertion of 2014 unit cost data.

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Operation Plan

Mining Operations and Facilities

Analysis:

On July 23, 2014 the Division received a response to the issues discussed during the meeting with IPA representatives on May 21, 2014. This analysis will include a review of that information in accordance with the Biology and Land Use regulations. Pages 3-1 and 4-1 (Biology and Landuse chapters) have been updated to include a paragraph that describes the location of a trans loading facility for oil within the Wlildcat loadout permit area. The information is adequate to meet the requirements of this section of the regulations. Approval is recommended.

jhelfric

Topsoil and Subsoil

Analysis:

Plate 1 shows the location of the Crude Oil Transloading facility on a former test plot. approximately 2,170 cu yds of topsoil will be salvaged and protected as described in Chapter 9, page 9-1 and 9-2 (section R645-301-200 Soils). The topsoil will be stockpiled in the location shown on Plate 1. The information provided in this amendment meets the requirements of R645-301-231.100 and R645-301-231.400.

pburton

Hydrologic Water Quality Standards

Analysis:

Ponds 1 and 2 will have water pumped from them when they reach 80% of the storage capacity. The Permittee states that water quality testing will be performed prior to pumping to ensure that they meet water quality standards. The plan states that the water will be pumped to "diversion ditch". This seems to indicate that water will be pumped to the newly proposed undisturbed diversion ditch. If water collected from the disturbed area of the facility, (proposed Ponds 1 and 2) is to be discharged into undisturbed drainage, two new outfall locations must be obtained and added to the existing UPDES permit through the Department of Environmental Quality. If new UPDES outfalls are obtained, these new outfalls need to be added to the MRP's water monitoring plan. The plan should be updated to clearly indicate to where the water in the ponds will be pumped.

Deficiencies Details:

R645-301-731.222.2 From the UPDES permit submitted with the application, it appears that there have not been outfalls added for the two proposed sediment ponds. The plan states that when the ponds reach 80% of their water storage capacity, water will be pumped into diversion ditches and into Garley Wash. This requires a new outfall for each pond, and the water monitoring plan in the MRP should be updated to include these points.

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Hydrologic Ponds Impoundments Banks Dams

Analysis:

IPA resubmitted an amendment to change their permit to allow for oil trans-loading facility construction. This amendment includes 2 sediment additional sediment ponds. The ponds were designed based on 100 year 24 hour storm and a rainfall depth of 2.73 inches. SEDCAD 4 was used to calculate sediment loading for the pond drainages. In addition to the two new sediment ponds, two existing ponds, call the Upper and Lower cells will be re-worked to provide additional storage volume.

Sediment Pond 1 is 50 feet by 120 feet and will be 8 feet deep. The capacity of the pond is 0.85 acre-feet. This allows for a five year sediment storage of 0.02 acre-feet and a runoff volume of 0.77 acre-feet. The pond cleanout level will be 6,073.16 feet, when the sediment level reaches the five year loading amount. The pond is designed to be a total containment pond, so water will be pumped from the pond when the water level reaches an elevation of 6,179.22 feet or 80% of the water volume. Page 2 of the Hydrology Report in Appendix A contradicts the earlier description of Pond 1 in the proposed Chapter 9 of the MRP and lists the depth of the pond as 9 feet deep

On page 9-12 of the proposed MRP, Sediment Pond 2 is described as 60 feet by 60 feet, and 10 feet deep. The capacity of the pond is given as 0.576 acre-feet. The five year sediment storage volume is listed as 0.000892 acre-feet and the runoff volume is listed as 0.43 acre-feet. Page 2 of the Hydrology Report in Appendix A lists a completely different sent of dimensions for Pond 2. It lists the size of the pond as 50 feet by 50 feet with a depth of 4 feet. The submitted map, "AES Drainage Areas 1, 2, & 3" show pond 2 as 50 feet by 50 feet.

Both Ponds 1 and 2 are designed as total containment ponds, as such the Permittee wants only one spillway in each pond. There are no design specifications given for the spillways. There are no dimensions given, and there is not a description of how the spillway will be constructed (i.e. riprap or concrete). The regulations require that the Permittee justify having only one spillway by demonstrating that the spill way is "of nonerodible construction and designed to carry sustained flows".

There are no maps provided of cross-sections of Ponds 1 and 2, there are also no maps indicating the location of the spillways.

The proposed plan indicates that Ponds 1 and 2 will have water pumped from the pond when each reaches 80% of the water storage volume. The plan states that water will be pumped to diversion ditches and discharged into Garley Wash after water quality test have been performed to make sure it meets water quality requirements. It is not clear into which ditch water will be pumped.

Deficiencies Details:

R645-301-742.220 Ponds 1 and 2 both have design discrepancies between the description in the Hydrology section of Chapter 9, and page 2 of the Hydrology report in Appendix A. Pond 1 is described as having a depth of 8 feet in one section and 9 feet in another. On page 9-12, sediment pond 2 is described as 60 feet by 60 feet, and 10 feet deep. Page 2 of the Hydrology Report in Appendix A lists the size of the pond as 50 feet by 50 feet with a depth of 4 feet. Also, the submitted map, "AES Drainage Areas 1, 2, & 3" show pond 2 as 50 feet by 50 feet. Correct the above mentioned sections so that the designs of the ponds are clear.

R645-301-742.223 Ponds 1 and 2 are described as having one spillway. This can be approved provided the applicant provides justification by demonstrating that the spill way is "of nonerodible construction and designed to carry sustained

flows". Currently the proposed MRP does not provide any description of how the spillways will be constructed. Please provide this justification.

R645-301-731.740 Maps containing pond locations should include location of inlets as well as the location of the spillways. Please update all maps containing the proposed ponds to show this information. Plate 2A should also be updated to include the location of ponds 1 and 2.

R645-301-731.750 Please submit maps with cross sections of the proposed ponds. These maps should include all relevant pond design information and elevations. Examples of these cross-section maps are found as Plates 3A-F in the currently approved MRP.

R645-301-742.221.36 For clarity purposes, please provide addition description in chapter 9, indicating that sediment markers will be placed in both ponds and will be clearly marked to indicate sediment cleanout levels as well as the 80% water storage level.

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Maps Monitoring and Sampling Locations

Analysis:

Page 9-9 indicates that monitoring location WCW-3 is located in the existing diversion ditch, UD-1. The narrative indicates that the monitoring location will be moved a short distance and relocated in the new diversion ditch. The narrative then references Plate 2A of the approved MRP which has the water monitoring location.

Plate 2A and Plate 15 need to be updated to show the new locations of the ponds, diversion ditch, water monitoring location WCW-3, and the new/updated drainage areas. Plate 31 should either be updated tp include the new facilities that will be located in the area shown on the map.

Deficiencies Details:

R645-301-731.700 The following plates need to be updated as described: Plate 2A needs to be updated to include the newly proposed diversion channel, new ponds, new/updated drainage areas, and the new location of WCW-3; Plate 15 needs to be updated with the new drainage areas and the new location of WCW-3; and Plate 31 should be updated to show the new used of the "depression area".

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Reclamation Plan

Bonding Determination of Amount

Analysis:

The Permittee submitted detailed cost estimate sheets for the coal loadout facilities which are permitted and constructed. Cost estimate sheets for the reclamation of the newly proposed oil transloading facility (to be located on the west side of the railroad tracks) were also included.

All of the cost estimate sheets submitted used unit costs which are out of date.

Deficiencies Details:

In accordance with the requirements of R645-301-830.140, (Bond Amount) "will be based on, but not limited to, the detailed estimated cost, with supporting calculations for the estimates, submitted by the permit applicant."

Unit costs must be used as determined from the 2014 R.S. Means Heavy Construction Cost Data Manual.

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