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Technical Analysis and Findings

Utah Coal Regulatory Program

May 13, 2016

PID: C0250005
TaskID: 5172
Mine Name: COAL HOLLOW
Title: NOV 21163

Summary

NOV 21163 was written for failure to have rough backfilling and grading follow coal removal by not more than 60 days. Mining ceased in HWT 2 with Panel 4E in July 2015. These final panels in HWT 2 are submerged below water, but are not backfilled. In the months since mining, water has ponded in the trench, complicating the process of backfilling. Drawing 5-38 indicates backfilling will be completed in 2016. The abatement for NOV 21163 is to provide a specific timetable for rough backfilling and grading of HWT 2 and describe the remaining volume required to fill HWT 2 and to update the narrative in Chapters 5, 7, and 8 accordingly.

The time table is for reclamation of HWT 2 by June 9, 2016.

The estimated volume of fill required is 618,027 LCY.

This application updates the narrative in Chapter 5 only.

Chapter 8 was just updated with the recent bond release (Task 5097) and the volume required to fill HWT 2 is accounted for in the current bond.

Chapter 7 was not updated because ACD has factored the large volume of water ponded in HWT 2 into the timeline for completing reclamation of HWT 2 by June 9, 2016. ACD referred to the existing plan which is summarized in the cover letter to this application, and which is repeated below:

""""In reply to the request for further information regarding compaction of the fill and a plan for handling water in the HWT, ACD will continue to backfill and handle water as described in the MRP and as we have for all previous pits. MRP Section 532.200 already addresses the stability of pit backfill and MRP Section 733.100 already describes management of mine water. As also stated in the approved MRP Appendix 7-16 North Private Lease PHC Section 8 Flooding or Streamflow Alteration "It has been possible to manage such modest quantities of mine water by utilizing some of the water for mine process/dust control and by burying accumulated groundwaters remaining in the bottom of mine pits at the completion of mining of the pit during backfill operations." ACD does not need to make a different plan for backfilling and water handling in the HWT as previous experience has proven successful.""""

The water handling plans will likely include irrigation of established reclaimed areas south of HWT 2 and of pasture lands within the permit area on the Dames lease (personal communication with Robert Nead 5/11/2016 and Kirk Nicholes (5/12/2016). The water was sampled and found to have a TDS of 835 mg/L and a field pH of 7.5. Laboratory analysis will be provided.

Deficiencies Details:

General Contents

Completeness

Analysis:

Deficiencies Details:

R645-301-121.100, Please correct the date given for reclamation of HWT 2 to read June 9, 2016 on page 5-97 of the amendment.

pburton

Operation Plan

Mining Operations and Facilities

Analysis:

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

The amendment meets the requirements of R645-301-523, -526, and 528 by including a description of the mining operation, method of coal mining, engineering techniques, anticipated annual and total production of coal by tonnage, and major equipment to be used for all aspects of those operations proposed to be conducted during the life.

The amendment does not meet the requirements of R645-301-500 by not addressing the required abatements to the MRP that require updated details, plates, and drawings pertinent to the control of water removal of the Highwall Trench. The Permittee stated in the cover letter to the amendment that the current operational measures will not impede the June 9 timeline for the complete backfilling of the highwall trench and will meet R645-301-553.140.

cparker

Hydrologic General

Analysis:

The amendment meets the State of Utah R645 requirements for Hydrologic-Balance Protection.

The Permittee will continue to backfill HWT 2 and handle the water within HWT 2 by drawing it down as they have done in prior pits. They will draw down the water by using it for dust suppression and by continuing to backfill HWT 2 allowing the water to soak into the backfilled sediment. The set date the HWT must be backfilled to AOC is June 9, 2016.

This approval is granted with the full understanding the Permittee has factored managing the water within HWT 2 into their backfill deadline. In other words, the accumulated water within HWT 2 will not prevent the Permittee from meeting the June 9, 2016 to backfill HWT 2 to AOC.

kstorrar

Maps Affected Area

Analysis:

The amendment meets the State of Utah R645-301-521.100 requirements for Affected Area Maps.

The amendment meets the requirements of R645-301-521.100 through-521.130 by not updating all the relevant maps for the entire area shown on the mine plan as detailed on in relation to the borrow area as such maps are relevant to NOV # 21174.

Reclamation Plan

Backfill and Grading General

Analysis:

The amendment meets the State of Utah R645 requirements for Backfill and Grading.

The amendment meets the general requirements of R645-301-553 by detailing a general backfill and grading plan that details how disturbed areas will be backfilled and graded to achieve the approximate original contour, eliminate all highwalls, spoil piles, and depressions, and achieve a postmining slope that does not exceed either the angle of repose or such lesser slope as is necessary to achieve a long term static safety factor of 1.3 and to prevent slides, minimize erosion and water pollution both on and off the site, and support the approved postmining land use. The revision did include narrative added to relevant Sections detailing that the remainder of the excess spoil will be rehandled to reclaim HWT 2 and HWT3. Narrative was also amended throughout Chapter 5 changing the anticipated backfill of the high wall trench to be completed by June 9, 2016 to meet the interim agreement. Section 553 was heavily corrected to show the additional required 1.3 M CY of backfill that will be required to backfill Pit 10 and Pit 9-C. The addition of the borrow area is being addressed in response to NOV #21164 and is currently awaiting pending revisions by the Permittee. The amendment did not contemplate any changes to drawing referenced at this time as all drawings will be amended in regards to NOV #21164.

cparker

Bonding Determination of Amount

Analysis:

The amendment meets the State of Utah R645 requirements for Determination of Bond Amount.

The amendment meets the requirements of R645-301-830.140 as the will submit detailed bond information in regards to the addition of the borrow in the amendment as response to NOV #21164.

cparker