



OGMCOAL DNR <ogmcoal@utah.gov>

Fwd: Task 5302 abatement NOV 21183

Priscilla Burton <priscillaburton@utah.gov>
To: OGMCOAL DNR <ogmcoal@utah.gov>

Tue, Oct 25, 2016 at 10:37 AM

----- Forwarded message -----

From: **Kirk Nicholes** <knicholes@altoncoal.com>
Date: Tue, Oct 25, 2016 at 8:59 AM
Subject: RE: NOV 21183
To: Priscilla Burton <priscillaburton@utah.gov>, Andrew Christensen <drew@altoncoal.com>
Cc: Daron Haddock <daronhaddock@utah.gov>, Dana Dean <danadean@utah.gov>, Bob Nead <blbnead@altoncoal.com>, "cherylparker@utah.gov" <cherylparker@utah.gov>

Priscilla,

Drew and I have looked this over and agree with your summary

Thanks

Kirk

From: Priscilla Burton [mailto:priscillaburton@utah.gov]
Sent: Monday, October 24, 2016 3:40 PM
To: Kirk Nicholes <knicholes@altoncoal.com>; Andrew Christensen <drew@altoncoal.com>
Cc: Daron Haddock <daronhaddock@utah.gov>; Dana Dean <danadean@utah.gov>; Bob Nead <blbnead@altoncoal.com>; cherylparker@utah.gov
Subject: Re: NOV 21183

Kirk and Drew,

Would you please take a minute to read this document and let me know if I have summarized your operation and reclamation plans accurately?

Priscilla Burton, MS, CPSSc

Environmental Scientist III

Utah Division of Oil, Gas & Mining

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On Mon, Oct 24, 2016 at 1:44 PM, Kirk Nicholes <knicholes@altoncoal.com> wrote:

From: Priscilla Burton [mailto:priscillaburton@utah.gov]
Sent: Monday, October 24, 2016 12:54 PM
To: Kirk Nicholes <knicholes@altoncoal.com>
Cc: Andrew Christensen <drew@altoncoal.com>; Daron Haddock <daronhaddock@utah.gov>; Dana Dean <danadean@utah.gov>
Subject: NOV 21183

Kirk,

We discussed your submittal dated 10/20/2016 this morning. I written my review based on our discussion and I find that I still have some questions.

I do not find in Appendix 2-4 any mention of the location of the temporary storage of the cultivated topsoil to be salvaged at final reclamation. I calculate that there will be 88,330 CY of cultivated topsoil recovered (1.5 ft over 36.2 acres). Because this volume is larger than the difference in stockpile #6 at interim and final reclamation (58,400 CY), I do not think it is going in stockpile #6. Where will this cultivated subsoil be temporarily stockpiled?

From table 2-4.13 15,000 cy of topsoil is salvaged and placed in topsoil #6, 91,600 cy of subsoil is salvaged. After the coal is removed the 91,600 cy subsoil is placed over the 36.2 acres(1.5' depth). When Pit 10 is backfilled the top 1' or 2/3rds of the 1.5' placed (58,400 cy found in section titled "Placement of Subsoil for Interim Reclamation", Page 12 of Appendix 2-4) of cultivated topsoil is salvaged and placed with the 15,000 cy in topsoil #6 for a total of 73,400 cy while pit 10 is backfilled.

If Stockpile #6 is assumed to be enlarged at final reclamation only by the salvage of topsoil from 20.4 acres of the borrow area to yield an additional 58,400 CY (to achieve the total 73,400 CY), then a recovery depth of 1.7 feet from the 20.4 acre area must be assumed. This is a greater depth than described for any area in Appendix 2-4. What is the volume of topsoil expected to be recovered from the 20.4 acre borrow area at final reclamation?

The materials going into stockpile #6 are accounted for in previous response above, the 36.2 interim reclamation area is the first disturbed at the time of pit 10 backfill. Therefore, before disturbing and salvaging materials from the 20.4 acre new disturbance, there is the 36.2 acre area available for live hauling topsoil and subsoil recovered

from the new disturbance. Thus there is no need for additional stockpiling of material. The stockpiled material is utilized for the last few acres disturbed.

Please clarify this information for me. I am going to lunch and will be back at 2:00 pm.

Priscilla.



task 5302 Operation Reclamation Plan Analysis.docx

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Permit Application Format and Contents

Analysis:

NOV 21183 has been abated with this amendment and personal communication from Kirk Nicholes and Daron Haddock, as follows:

1. Update the MRP narrative with plans for interim reclamation and stabilization of the cut slope affect.

ACD has responded with a plan to mine coal in Pit B1 and then restore a 3h:1v slope.

2. State the size of the area affected.

Appendix 2-4 states a 10.4 acre Pit 1B mining area. Appendix 2-4 states a 36.2 acre interim reclamation area which includes the Pit B1 highwall. Appendix 2-4 states an additional 30.5 acres of borrow area for Pit 10 to arrive at a 62 acre final reclamation borrow area.

3. Include volumes of spoil to be placed as fill.

ACD responded with a cut/fill table on Dwg 5-35 which states that there are 324,000 CY of spoil above the original topography. (This figure is approximate, as is the third quarter certified spoil inspection report, dated 9/15/2016, which indicates that there is 389,000 CY excess spoil remaining.)

4. Describe plans to place fill in a controlled manner, blend contours, provide compaction, control drainage and erosion and to establish vegetation.

Pits will be end-dumped. Slope fills will be compacted with equipment traffic. ACD has responded that the slope will be constructed to a 3h:1v which is a lesser slope than the angle of repose and which is therefore stable (Dwg 5-36 and App. 5-5). Erosion and sediment control for the Pit B1 mining and interim reclamation is shown on Dwg 5-3. Interim reclamation for 36.2 acres affected by mining of Pit B1 is described in Appendix 2-4 and Section 233.100-400.

5. Plans will be certified by a P.E.

ACD will provide certified drawings upon approval of the application.

6. Provide existing and proposed interim reclamation contours on a map, with a commitment to provide an as-built survey of the reclamation construction.

ACD has provided pre-mining and proposed post mining topography on Dwg 5-35 Intermediate Topography and Dwg 5-37 Post Mining Topography. Mr. Haddock has stated that as-built topography of the intermediate surface will be provided as a matter of course and no commitment is required (personal communication 10/18/2016).

6. Provide State in the MRP the volume of the excess spoil remaining for other reclamation uses.

ACD states in a table on Dwg 5-35 that 277,000 CY is currently available for the reclamation of Pit 10, Pit 9c and the Temporary Diversion of Lower Robinson Creek.

7. Adjust the bond line items for all work accordingly.

ACD has provided an adjusted bond.

Operation Plan

Analysis:

ACD has committed to seasonally seed piles by November 30th of each calendar year and to apply tackifier to piles that are sort term (MRP Sec 234.230 and 244.100). Thus topsoil stockpile #6 will be seeded during interim reclamation. During final reclamation, when the same stockpile grows to 73,400 CY and the life span of the pile is expected to be 6 - 12 months, the four acre pile will be treated with a tackifier.

Chapter 2 text refers to Appendix 2-4 information on replacement of subsoil over 36.2 acres during the interim reclamation period (App. 2-4 pp.10-12 and Dwg 3-7 and 5-38).

Topsoil and subsoil will be salvaged from 10.4 acres during mining of Pit B (Table 2-4.12). Topsoil and subsoil will be stockpiled as shown on Dwg 2-2. Topsoil will be seeded and remain stockpiled until reclamation of Pit 10.

Subsoil will be temporarily stockpiled in stockpile location #4 and treated with a tackifier until completion of Pit B1. Subsoil will then will be replaced over the interim reclamation area shown on Dwg 3-7. This subsoil will be redistributed to a depth of 1.5 feet over a 36.2 acre interim reclamation area shown on Dwg 3-7. This soil will be seeded and cultivated for use as substitute topsoil. The interim mix to be used is given in Section 233.100-400 (p. 2-32)

Reclamation Plan

Analysis:

Chapter 2 text refers to Appendix 2-4 information on the final reclamation area of 62 acres (App 2-4 p.13 and Dwg 2-2, 3-7 and 5-38). This information along with statements made by Mr. Nichols in telephone conversations on October 24, 2016 meet the requirements of the R645-301-240 topsoil and soil redistribution rules.

Prior to any topsoil or subsoil removal from the interim area, the soil will be sampled down to a depth of four feet (Section 231.300 and Sec 233.100-400). The soils will be sampled to a depth of 1.5 feet in six inch increments and thereafter will be sampled in one foot increments (personal communication with Mr. Nichols on 10/24/2016). Cultivated subsoil will then be removed to a depth of 1.0 foot from the 36.2 acre interim reclamation area (Appendix 2-4 page 13 and Dwg 3-7). The 1.0 foot cultivated topsoil recovery will produce 58,400 CY of soil which will be added to topsoil stockpile #6. This short term topsoil stockpile #6 will cover four acres and will be treated with tackifier. If reclamation does not proceed within 6-12 months as planned, the topsoil will be seeded on or before November 30 (Section 234.230 and personal communication with Kirk Nichols 10/24/2016).

The remaining 0.5 feet of cultivated subsoil will generate approximately 30,000 CY and will be placed in the subsoil stockpile #4.

The salvaged topsoil from the 20.4 acres will generate 14,952 CY and the salvaged subsoil from the 20.4 acre area will generate 81,851 CY (App. 2-4, Table 2-4.14). This includes the salvage of material rated as poor based on the alkaline pH and carbonate content of the subsoil. Tables 2-4.8 and Table 2-4.9 list the poor qualities of the soil. A plan for amending the quality of the poor subsoil was requested earlier, but not yet received (see review of Task 5261 and 2016 Outgoing correspondence dated 9/28/2016).

Reclamation of Pit 10 will begin by retrieving the remaining 324,000 CY excess spoil from the former excess spoil pile location (Dwg 5-35 and Appendix 2-4, Table 2-4.14). When the 324,000 CY excess spoil are removed, approximately 234,373 CY of subsoil will be exposed and salvaged from beneath the spoil pile (Appendix 2-4, Table 2-4.14). This subsoil will create the bulk of subsoil pile #4 which will cover 7.8 acres and which will be treated with a tackifier. If reclamation does not proceed within 6-12 months as planned, the topsoil will be seeded on or before November 30 (Section 234.230 and personal communication with Kirk Nichols 10/24/2016).

As Pit 10 continues to be filled with overburden from the 36.2 acre area, the 36.2 acres will be graded to final topography shown on Dwg 5-37. A portion of subsoil from stockpile #4 will be graded out over a portion of the 36.2 acre area to prepare the surface for live haul of topsoil from the remaining 20.4 acres of the borrow area (personal communication from Kirk Nichols 10/24/2016). The 20.4 acre figure was arrived at by comparison of Table 2.4-12 and 2.4-13 in Appendix 2-4 (i.e. 30.8 acres - 10.4 acres).

Removal of the topsoil from the 20.4 acre borrow area will begin in the SW portion of the borrow area. The topsoil will be hauled and placed on top of subsoil above the Pit B1 interim reclamation area. The remainder of the subsoil and topsoil cover for the final reclamation of the 36.2 acre area will be from live haul of the SW portion of the borrow area (personal communication from Kirk Nichols 10/24/2016).

The last area to be disturbed will be the red-dog hill, NE of Pond 3. Topsoil and subsoil will be live hauled from this location and placed on the final graded surface of the 20.4 acres of additional borrow area. The overburden from the red-dog hill will be placed in Pit 10.

The entire 62 acre borrow area (Appendix 2-4, p. 13) will have topsoil and subsoil salvaged and replaced at final reclamation. Subsoil will be redistributed over a final borrow area of 62 acres to a depth of 3.1feet. Topsoil will be replaced to a depth of 0.9 feet (Appendix 2-4, p. 13).

Timing of subsoil and topsoil placement (R645-301-542.100-200), ACD refers to Section 553 states that backfill and grading (including subsoil) will follow removal of coal in 60 days and that topsoil will generally follow grading within 90 days (MRP Sec 542.100-600) and seeding will be conducted by November 30th of each year (MRP Sec 234,230).

Deficiency: The conditional approval of this amendment must include a reminder that in under Task review 5261 Pit 10 Borrow Area, several deficiencies were identified in accordance with R645-301-233, concerning the plan for amending the poor quality subsoil (see review of Task 5261 and 2016 Outgoing correspondence dated 9/28/2016). This information has not yet been received.

Stabilization Plan

Analysis:

Protection of replaced topsoil and subsoil is addressed in MRP Section 532.200. ACD stated on10/21/2016 that topsoil should be placed in season in anticipation of mulching and seeding. ACD further states that mulching is the best method for short term stabilization of topsoil, because vegetation can require around two years to be established. Mulching is described in Section 244.200 of the MRP.