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# TECHNICAL MEMORANDUM

## Utah Regulatory Program

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February 23, 2011

TO: Priscilla Burton, Environmental Scientist III, Team Lead *PWB by SES*  
FROM: Peter Hess, Engineer, Environmental Scientist III *PHH by SES*  
RE: CHANGE TO MINING SEQUENCE, Alton Coal Development, LLC,  
Coal Hollow Mine, C/025/005, Task ID # 3735

**SUMMARY:**

The Permittee, Alton Coal Development, LLC, submitted a permit application change to the Division on February 7, 2011 to change the pit sequence from that originally permitted and approved on November 8, 2010. The proposed change will only affect the topsoil removal, burden removal, and coal recovery sequence from the Phase I mining area.

This memo was written in response to questions asked by the Team Lead during review of the engineering technical memos (email from Priscilla Burton to James Owen and Pete Hess on 2/15/2011, sent to file 2/23/2011).

In conclusion, the Division cannot make a recommendation for approval until the Permittee provides clear and concise information which depicts how each coal recovery area in Stage 1 of the Coal Hollow Mine is to be uncovered, recovered, filled and reclaimed in accordance with the requirements of the R645 Coal Mining Rules.

**R645-301-521.162 and R645-301-121.200**, The Task ID # 3735 application titled "CHANGE TO MINING SEQUENCE" is inadequate in that it does not provide the following five items:

- 1) overburden removal maps which clearly show the sequencing of removal, the location where each pits material will be stored, or utilized as immediate backfill, using the approved primary haul road locations;
- 2) coal recovery maps which **clearly depict** how the coal resource will be uncovered and removed using the approved primary haul road locations;
- 3) backfilling and grading maps which **clearly depict** the sequence of backfilling and rough grading for each of the coal recovery areas.
- 4) A map / reclamation time table or bar graph **which clearly shows** when backfilled and seeded areas will be re-soiled and seeded.

- 5) All maps will be coordinated such that monitoring of each step of the reclamation process can be reviewed on a monthly basis by Division personnel.

## **OPERATION PLAN**

### **COAL RECOVERY**

Regulatory Reference: 30 CFR 817.59; R645-301-522.

#### **Analysis:**

R645-301-553 requires that for surface coal mining and reclamation operations, rough backfilling and grading operations be conducted so that burden replacement does not lag more than 60 days behind coal removal, or a maximum coal face / pit length of 1,500 feet exists.

Page 5-65 of the approved mining and reclamation plan states in the opening sentence of section 553, Backfilling and Grading, which “backfilling and grading of the mined area will proceed in conjunction with coal recovery operations.” There has **not been any change requested** to this section (page 5-65) in the Task ID # 3735 application. Therefore **the requirement of R645-301-553** to keep the backfilling of mining pits where the recovery of coal has been completed a maximum of 60 days behind and /or have a maximum length of the coal recovery area limited to 1,500 feet **is still a requirement** in this mining and reclamation plan. Monthly inspections conducted by the Division will monitor backfilling of mining pits to ensure that this Permittee continues to operate in compliance with the approved mining and reclamation plan.

The main change submitted in Task ID # 3735 is a revision to Drawing 5-10, which changes the coal recovery sequence in pits 2 through 8 in Phase I of the mining sequence. Pit 1 and Pits 9 to 13 are unchanged by the proposed coal recovery sequence (See Dwg 5-10, revised, as submitted with Task ID #3735).

Drawing 5-16, Overburden Removal Sequence does not need to be revised, as it depicts the area of the Coal Hollow Mine where overburden will be removed during the **first year** of operation, and not where burden will be removed from each pit in a sequential basis. It is known that the burden has to be removed prior to the coal recovery, therefore, over burden removal has to occur in the same sequence that the permittee plans to recover the coal.

Drawing 5-17, Overburden Removal Stage 1, approved, depicts that Pit 1 is partially backfilled, and pits 6, 7, and 8 are completely backfilled, while coal recovery

from pits 3, 4 and 5 is occurring. Contour lines on Dwg 5-17 show that Pit 2 and the north edge of pits 3, 4 and 5 have also been rough graded. Drawing 5-17 shows that only Pit 1 will be partially backfilled, while pits 2, 3, 4 and 5 are allowed to remain open, while pits 6, 7 and 8 are mined.

The Division concurs that Pits 4 and 5 and part of Pit 2 must be allowed to remain open while burden removal is happening in Pit 9, but to have Pits 2, 6, 7 and 8 and the north edge of pits 3, 4, and 5 open beyond the 60 day time limit is not in compliance with the requirement of R645-301-553.

**Drawing 5-17 should be revised** to show that backfilling of the western edge of pits 6, 7, and 8 is proceeding as coal recovery of the retreating east edge of the pit is occurring. Thus, a large pit area will not exist when the Permittee completes coal recovery in Pit 8 and moves toward Pit 9.

Proposed Drawing 5-10, as submitted with Task ID # 3735 contains a note, “**Pit numbering does not necessarily indicate sequence**”. **The Division must have a clear definition of what the Permittees means**, as Division approval of this statement would give the Permittee “carte blanche” authorization to remove overburden and strip with no means to ensure reclamation in a timely fashion.

If the pit numbering sequence does not indicate the coal removal sequence, which in turn dictates the rough grading and backfilling sequence, drawings 5-10, 5-16, and 5-17, as submitted, are meaningless.

Drawing 5-38, Reclamation Sequence should be revised to show the 60 day period of years 1, 2, and 3 when rough grading and backfilling will occur for each specific coal recovery area, or a time line can be established to show this.

R645-301-542.100 requires that “a detailed timetable for the completion of each major step in the reclamation plan be submitted”. The Division feels that a timetable showing each area which is reclaimed “annually”, (i.e., Drawing 5-38, Reclamation Sequence for Years 1, 2, 3, and 4), DOES NOT SHOW SUFFICIENT DETAIL or sequential reclamation activity to meet the requirements of R645-301-553. Rough grading of pits where coal has been recovered must follow within at least 60 days, unless the Division can justify, (based upon a detailed description provided by the Permittee) of a need to allow for additional time, to complete the backfilling.

**Findings:**

Prior to approval, please provide the following in accordance with:

**R645-301-521.162 and R645-301-121.200**, The Task ID # 3735 application titled “CHANGE TO MINING SEQUENCE” is inadequate in that it does not provide the following five items:

- 1) overburden removal maps which clearly show the sequencing of removal, the location where each pits material will be stored, or utilized as immediate backfill, using the approved primary haul road locations;
- 2) coal recovery maps which **clearly depict** how the coal resource will be uncovered and removed using the approved primary haul road locations;
- 3) backfilling and grading maps which **clearly depict** the sequence of backfilling and rough grading for each of the coal recovery areas.
- 4) A map / reclamation time table or bar graph **which clearly shows** when backfilled and seeded areas will be re-soiled and seeded.
- 5) All maps will be coordinated such that monitoring of each step of the reclamation process can be reviewed on a monthly basis by Division personnel.

**CONCLUSION:**

The Division cannot make a recommendation for approval until the Permittee provides clear and concise information which depicts how each coal recovery area in Stage 1 of the Coal Hollow Mine is to be uncovered, recovered, filled and reclaimed in accordance with the requirements of the R645 Coal Mining Rules.