

TECHNICAL MEMORANDUM

Utah Coal Regulatory Program

June 19, 2013

TO: Internal File

THRU: Steve Christensen, Lead *SLC*

FROM: Joe Helfrich, biology, land use, cultural resources *Jeh*

RE: Midterm Review, Consolidation Coal Company, Emery Deep Mine, C015/0015, Task ID #4363

SUMMARY:

On May 31st the Division initiated the midterm review for the Emery Deep Mine. The review includes the following items:

- A. Review of the Plan to ensure that the requirements of all permit condition, division orders, notice of violation (NOV), abatement plans, and permittee-initiated Plan changes approved subsequent to permit approval or renewal (whichever is the most recent) are appropriately incorporated into the Plan document.
- B. Ensure that the Plan has been updated to reflect changes in the Utah Coal Regulatory Program which have occurred subsequent to permit approval or renewal.
- C. Review applicable portions of the permit to ensure that the Plan contains commitments for application of the best technology currently available (BTCA) to prevent additional contributions of suspended solids to stream flows outside of the permit area.
- D. Evaluate the compliance status of the permit to ensure that all unabated enforcement actions comport with current regulations for abatement; verify the status of all finalized penalties levied subsequent to permit issuance or permit renewal, and verify that there are no demonstrated patterns of violation (POV). This will include an AVS check to ensure that Ownership and Control information is current and correct.
- E. Evaluate the reclamation bond to ensure that coverage adequately addresses permit changes approved subsequent to permit approval or renewal, and to ensure that the bond amount is appropriately escalated in current-year dollars.

F. Evaluate the permit for compliance with variances or special permit conditions.

G. Optional for active mines, mandatory for reclamation only sites: conduct a technical site visit in conjunction with the assigned compliance inspector to document the status and effectiveness for operational, reclamation, and contemporaneous reclamation practices undertaken on predetermined portions of the disturbed area to minimize, to the extent practicable, the contribution of acid or toxic materials to surface or groundwater, and to otherwise prevent water pollution.

This memo will include a review of item A.

Summary of Deficiencies
Task No. #3889
Emery Reclamation Commitment

The members of the review team included the following individuals:

Priscilla Burton(PWB)

Joe Helfrich (JH)

R645-301-340, Commitments 2, 3 and 4 noted in the scope of the investigation will need to include timelines for implementation. Additional recommendations for commitment #2 include:

A site visit with the permittee to visit the 22 study areas and discuss the results of the vegetation and soils investigations prepared by Mt. Nebo Scientific. (completed 10/12/2011)

The addition of salt tolerant legumes and other salt tolerant plant species to the final reclamation seed mix based on the site visit and survey discussion.

A timeline for the submittal of plans should be established during the onsite meeting. (pending), There was some discussion but nothing set in stone.

The requirement in commitment # 4 to submit the reclamation plan 12 months prior to final reclamation should be deleted. (JH)

Analysis:

During the Emery Deep mine's 2011 annual report review process, a commitment was identified that needed to be addressed. The commitment discusses the development of an investigative study into past reclamation practices conducted at the Emery Deep and Hidden

Valley Mines. The following is the commitment as found on page 4a of Chapter 3 of the MRP.

The permittee is committed to develop an investigative study into past reclamation practices conducted at the Emery and Hidden Valley mine sites. The scope of the investigation shall include but not limited to:

- 1. Evaluate current vegetation and soil chemistry of all topsoil and subsoil stockpiles. Past reclamation sites of disturbed land are to be included within the scope of study. "A Reclamation Monitoring Study for the Emery Mine- Vegetation and Soils" was completed in 2003 and can be found in ChIII Appendix III-1.*
- 2. Based on findings from the study, plans shall be developed to enhance the vegetation of each site. The plan is to be reviewed with Division of Oil, Gas and Mining (DOG M) prior to implementation of the plan. Period for implementing enhancement methods should be performed when warm season planting may be conducted.*
- 3. The qualitative part of the study will be performed annually and the quantitative aspects be performed between the 4th and 6th year, following initial implementation of enhancement methods. The present reclamation methods shall be correlated with the historical weather information obtained from on-site weather station.*
- 4. Based on the follow-up study, a total reclamation plan shall be developed for the Emery mine site. The plan is to incorporate and utilize the best reclamation practices found through the previous investigative studies. The final reclamation plan will be developed in conjunction with DOGM and submitted 12 months prior to initiating final reclamation.*

Division of Oil, Gas and Mining (the Division) staff members reviewed the commitment and conducted a technical analysis of the relevant information currently in the approved Mining and Reclamation Plan (MRP). Based on the technical analysis, the Division had identified several deficiencies that were to be addressed in order to satisfy the commitment.

TECHNICAL MEMO

Deficiency List
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On-site visits were completed on October 12 and 25, 2011 with Division and Emery Deep representatives to discuss the aspects of the commitment and determine the best way forward. At that time, John Gefferth, Steve and Peter Behling and Patrick Collins from Mount Nebo Scientific were working in a collaborative effort based on site visits to respond to the deficiencies noted in this document.

Findings:

The deficiencies need to be addressed prior to approval.

RECOMMENDATIONS:

The permittee needs to address the deficiencies noted in this memo in order to complete the midterm review.