

TECHNICAL MEMORANDUM

Utah Coal Regulatory Program

October 27, 2003

TO: Internal File

FROM: Dave Darby, Senior Reclamation Hydrologist/Team Lead

RE: 2003 Midterm Review, Consolidation Coal Company, Emery Deep Mine, C/015/0015, Task ID #1693

SUMMARY:

The Division initiated a midterm review of the Emery Deep Mine via correspondence with Mr. John A. Gefferth of Consolidation Coal Company on September 16. The letter outlined the following elements as those selected for review.

A review of the plan to ensure that the requirements of all permit conditions, division orders, notice of violation abatement plans, and permittee initiated plan changes are appropriately incorporated into the plan document.

A review of the 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.

TECHNICAL MEMO

TECHNICAL ANALYSIS:

GENERAL CONTENTS

A Division Order (DO) was issued on March 27, 2003 requiring Consolidation Coal Company (Consol) to update the Probable Hydrologic Consequences (PHC) section of their Emery Deep Mine, Mining and Reclamation Plan (MRP). Division received an update to Consolidation Coal Company's PHC on August 18, 2003. The update describes changes to the hydrologic regime between the years, 1990 to 2002. The information presented by Consol and subsequent review concluded that changes to the underground hydrologic conditions have not changed during the time the mine was idle. Continued pumping during the shutdown period did not allow aquifers to rebound. Shallow alluvial aquifers in Quitchupah and Muddy creeks did not show drawdown, but reflect the current streamflow in the channel. The PHC update was determined complete on October 14, 2003.

HYDROLOGIC RESOURCE INFORMATION

Regulatory Reference: 30 CFR Sec. 701.5, 784.14; R645-100-200, -301-724.

Analysis:

Sediment control measures

The applicant has submitted information in the MRP describing structures and methods to contain and control sediment on the minesite. The same structures will prevent sediment from leaving the minesite. A combination of the best management practices (BMPs) have been implemented at both the 4th East Portal and at the main minesite. Berms, ditches and culverts have been designed to divert undisturbed area flows away from the disturbed areas and direct disturbed area flows to sediment ponds and silt fences for treatment. The combination of sedimentation ponds and silt fences treat the disturbed area runoff before it leaves the disturbed areas. Any water leaving the minesite must comply with State and federal water quality standards under the National Pollutant Discharge Elimination System.

Sediment control structures will remain in place to treat disturbed area runoff throughout the operational and reclamation process. Bond release occurs in three phases. Surface water management, which includes overland flow, sediment control and alternate sediment controls is described in Chapter VI 1-2. Drainage ditch design sedimentation pond design and alternate sediment control designs are in Chapter VI 2-2, appendices VI-6, VI-7 and VI-8. The permittee has planned to contain runoff on both sites through Phase 2 using a combination of

sedimentation ponds, silt fences, soil roughening, vegetation growth and straw bales. Silt fences, straw bales, soil roughening and vegetation growth will be used over an addition period, until the permittee can show that additional sediment is not contributed to the streams from the disturbed areas.

Probable Hydrologic Consequences Determination

A Division Order (DO) was issued on March 27, 2003 requiring Consolidation Coal Company (Consol) to update the Probable Hydrologic Consequences (PHC) section of their Emery Deep Mine, Mining and Reclamation Plan (MRP). Division received an update to Consolidation Coal Company's PHC on August 18, 2003. The update describes changes to the hydrologic regime between the years, 1990 to 2002. The information presented by Consol and subsequent review concluded that changes to the underground hydrologic conditions have not changed during the time the mine was idle. Continued pumping during the shutdown period did not allow aquifers to rebound, nor did it draw down the water tables in the aquifers substantially after 1993. Shallow alluvial aquifers in Quitchupah and Muddy creeks did not show drawdown, but reflect the current streamflow in the channel. The PHC update was determined complete on October 14, 2003.

Findings:

The permittee has submitted sufficient information to update the Probable Hydrologic Consequences Determination in the Hydrologic Resource Information section of the MRP.

RECOMMENDATIONS:

It is recommended that the hydrologic parts of the Mid-term evaluation be approved.