

TECHNICAL MEMORANDUM

Utah Coal Regulatory Program

February 1, 2008

TO: Internal File

THRU: Daron Haddock, Permit Supervisor

FROM: Dana Dean, P.E., Senior Reclamation Hydrologist

RE: Reclamation of East Mountain Emergency Drill Pads, Task ID # 2893, Genwal Resources, Inc., Crandall Canyon Mine, C/015/0032

SUMMARY:

In August of 2007, Genwal Resources, Inc. (the Permittee) drilled seven holes outside of their permitted disturbed area in an effort to locate trapped miners. Because of the nature of the emergency, the Division did not require the Permittee to amend their Mining and Reclamation Plan (MRP), or post a bond for the additional disturbance at that time. When rescue efforts were called off, the Division met with the Permittee, the US Forest Service (USFS), the Bureau of Land Management (BLM) and the State Institutional Trust Lands Administration (SITLA) to work on an agreeable plan for reclamation. As much reclamation as was possible was done before winter conditions forced the Permittee to shut down until spring. The Division asked the Permittee to amend their plan and bond to account for all reclamation work yet to be done on the drill pads. The Permittee submitted such a plan to the Division on December 27, 2007.

This technical memorandum discusses the hydrology related issues pertaining to the proposed amendment to the Crandall Canyon Mining and Reclamation Plan (MRP).

The application does not meet the requirements of the relevant hydrology regulations. The Division should not approve the amendment until all deficiencies have been adequately addressed.

TECHNICAL ANALYSIS:

RECLAMATION PLAN

HYDROLOGIC INFORMATION

Regulatory Reference: 30 CFR Sec. 784.14, 784.29, 817.41, 817.42, 817.43, 817.45, 817.49, 817.56, 817.57; R645-301-512, -301-513, -301-514, -301-515, -301-532, -301-533, -301-542, -301-723, -301-724, -301-725, -301-726, -301-728, -301-729, -301-731, -301-733, -301-742, -301-743, -301-750, -301-751, -301-760, -301-761.

Analysis:

Water-Quality Standards And Effluent Limitations

The Permittee has not met the requirements of R645-301-751. The Permittee must show that the sediment control measures for the Emergency Drill Hole reclamation comply with all applicable State and Federal water quality laws and regulations and with the effluent limitations set forth in 40 CFR Part 434.

40 CFR Part 434 §434.82 states that the effluent limitation for reclamation areas at Western Alkaline Coal Mines will be met if the Permittee demonstrates, through watershed models, that implementation of the sediment control plan will result in average annual sediment yields that will not be greater than the sediment yield levels from pre-mined, undisturbed conditions. The Permittee may provide sediment control calculations based on the Revised Universal Soil Loss Equation (RUSLE2), SEDCAD, or any other standard acceptable model.

Sediment Control Measures

For areas not fully reclaimed, the Permittee has not met the requirements of R645-301-742. The Permittee must provide more specific plans and/or calculations to demonstrate that they are using the best technology currently available to prevent, to the extent possible, additional contributions of sediment to stream flow or to runoff outside the permit area; meet the effluent limitations under R645-301-751; and minimize erosion to the extent possible.

Findings:

The Permittee has not met the requirements of the Reclamation Plan: Hydrologic Information section of the Regulations. Before approval, the Permittee must provide the following in accordance with:

R645-301-751: The Permittee must show that the sediment control measures for the Emergency Drill Hole reclamation comply with all applicable State and Federal water quality laws and regulations and with the effluent limitations set forth in 40 CFR Part 434.

R645-301-742: The Permittee must provide specific plans and/or calculations to demonstrate that they are using the best technology currently available to prevent, to the extent possible, additional contributions of sediment to stream flow or to runoff outside the permit area; meet the effluent limitations under R645-301-751; and minimize erosion to the extent possible.

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RECOMMENDATIONS:

The application does not meet the minimum requirements of the relevant hydrology regulations. The Division should not approve it until all deficiencies are adequately addressed.

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