



# State of Utah

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March 11, 1993

TO: Pamela Grubaugh-Littig, Permit Supervisor

FROM: Ken Wyatt, Reclamation Hydrologist *KW*

RE: Administrative Completeness Review, Mountain Coal Company, Gordon Creek 2, 7, & 8 Mines, ACT\007\016, Folder #3, Carbon County, Utah

## SYNOPSIS

On February 1, 1993, Mountain Coal Company submitted the long awaited final reclamation plan for the Gordon Creek 2, 7 and 8 mines. Attached is a copy of the administrative completeness review of this plan. I would like to provide you with some of the concerns that have been uncovered in the process of reviewing this document.

## ANALYSIS

The hydrology section of the permit application is mostly complete. There are some issues that will need to be dealt with prior to commencement of reclamation activity. These are listed below and this list is not all inclusive as additional concerns could arise with further technical review.

The applicant has used Earthfax consultants to produce much of the hydrology design. Earthfax has selected type "b" storm event to design peak flows and runoff volumes. The numbers generated from this are well below the numbers that were originally used in the approved MRP. Original reclamation design used peak flows over 50 cubic feet per second and these flows are now well below this. The point is that the operator can arrive at a much more economical reclamation project in that ditches, rip rap and other designed structures are now constructed to a smaller degree. This may become a point of discussion.

The applicant has proposed to construct a permanent sediment pond and take out the access road from the gate up to the site. No statements from the landowner regarding his/her desire to keep the pond was provided. The consultants have estimated that the pond will have a 2.3 year sediment storage

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capacity. This means that over the ten year bond period the applicant will need to clean the pond about 4-5 times. With no access road the reclaimed site will need to be re-disturbed to allow equipment in to the sediment pond. The plate associated with the pond does not contain adequate detail. No design line for sediment is shown. The text does not describe how sediment markers will be used to define when the pond should be cleaned.

The alignment of the main reclaimed channel may need some attention. Similar to JB King, the applicant has proposed a diversion that flows relatively level (3.6%0 and the turns abruptly to the left. This may cause problems in a large precipitation event. Also the alignment in relation to the overall canyon needs to be examined. I think that a better channel design and alignment could be designed.

Additionally, the flow from the Right Fork of Bryner Canyon is shown to pond in a depression adjacent to the permit area where a culvert previously collected undisturbed flow from this canyon. The applicant will need to address why the culvert will be removed but the channel will not be constructed to allow flow to cross the reclaimed area without first ponding and filling this depression.

### **RECOMMENDATION**

These are some of the concerns that have been discussed between the technical staff. Additional technical review will be required prior to approval.