July 30, 1986

TO: FILE

FROM: R. HARDEN

RE: Reclamation Plan Review, Blackhawk Mine, ACT/043/001, Summit County, Utah

Plans submitted to the division are a proposal for a Coal exploration plan for the Blackhawk Mine Site. These plans address conducting exploration activities on the site and do not address reclamation of the existing site conditions. The Board required Blackhawk to post bond and submit a reclamation plan for the site. Deficiencies in the coal exploration plan with regard to reclamation of the site as required by the board are as follows:

Contour maps and cross sections provided show existing reclamation contours. Contours provided on the post reclamation map are identical to those shown on the existing contour map. Determination as to whether the site will be reclaimed to approximate original contour cannot be made and the amount of earthwork required for reclamation cannot be determined.

No topsoil storage pile is indicated on the drawings and the amount of topsoil required has not been determined in the plan. Further no volume calculations or mass balance has been provided to prove sufficient topsoil available or to determine reclamation bonding costs. Comments on page 776.12-53 of the plan indicate that the area has been previously disturbed and no topsoil is present. Comments on page 776.12-69 of the plan indicate that topsoil which has been stored will be redistributed on disturbed areas as necessary. It is apparent from site visitation that no topsoil has been stored on the site. The Operator must locate suitable substitute topsoil material. The applicant must provide adequate topsoil or sustitute topsoil material on the site and adequate soil ammendments through analysis in order to implement reclamation on the site.

No plans are included for temporary and permanent closure of existing mine openings. The applicant must provide the plans and designs required in order to receive approval for this section. Portals must be sealed with a block stopping and backfilled a minimum of 25 feet. The applicant must show that the existing porals on the site were closed in this manner or shall be closed in this manner upon reclamation of the site.

Highwall stabilizations plans presented in the plan are not adequate. No analysis is provided in the reclamation plan to show that the existing or the proposed slapes are stable. The Operator refers to Ben Seegmiller as providing analysis of the highwall but no calculations or analysis are provided to support this reference. Investigation and design of the highwall for post reclamation stability must be provided prior to approval of the reclamation plan. The applicant should provide information and designs showing the measures required to stabilize the existing highwall including appropriate cross sections.

The estimate of reclamation costs provided in the plan does not provide sufficient information to determine the bond amount adequate. Suitable maps must be provided to indicate the location and the extent of the reclamation work to be implemented. Drawings provided show no changes between the existing and the post mining contours. Mass balances should be provided with appropriate cross sections to show pre- and post-reclamtion contours. Mass balances should be provided to show the required amount and location of suitable topsoil or substitute topsoil materials needed. The location and amount of footings and foundations to be removed shall be included in the cost estimate. The locations of the existing portals shall be located for reclamation.

The Operator shall clearly show which facilities are to remain as a result of Phase I reclamation of the site and Phase II reclamation of the site. That is, during Phase I reclamation of the site, sediment controls including the sediment pond shall be left in place until such time as revegetation has been established. Phase II reclamation will involve the removal of the sediment pond and other sediment control structures as required upon achieving the required vegetative cover. In general the bonding cost estimate and the reclamatipn plan for the site should closely correspond and provide a detailed plan for the reclamation activity and associated costs.

The sequence and the timing of the reclamation activities on the site are required in the form of a timetable in the reclamation plan. The operator has provided a tentative timetable for the initialization of the exploration activities proposed on the site which does not satisfy the above requitements. The timetable required shall show the logical sequence and the duration of the reclamation activities to be accomplished on the site. The reclamation timetable need not be specific to actual calendar dates for reclamation work but should be shown with consideration to seasonal restrictions and requirements for reclamation work.

The quanties, equipment selection, productivity and costs must be determied for the reclamation work accomplised on the site. Please refer to the bonding guidelines provided following this review.

Coal analysis provided in the plan accounts for the metalugical quality of the coal. The Operator must provide analysis for toxicity and the potential for acid and toxic forming materials. This analysis must be provided for the coal materials prior to approval of the reclamation plan.

cc: S. Linner