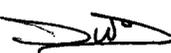


December 16, 1987

To: File

From: David Darby, Geologist 

RE: Determination of Completeness; New Ventilation Portal,  
Convulsion Canyon Mine, Southern Utah Fuel Company (SUFCo),  
ACT/041/002, Folder No. 2, Sevier County, Utah

Summary

SUFCo submitted a modification request on November 4, 1987 to develop a new portal area in Quitcupah Creek. It has been reviewed with respect to geologic and ground water concerns. In evaluating this proposal my major concern is whether this site will become a discharge point after the mine has been abandoned.

The operator has committed to providing a permanent mine seal at the portal upon termination of mining. The proposed seal will be designed to withstand the hydraulic head that would develop if the entire mine is flooded.

Due to the location of this portal and the jointing system that exists in the area of the portal, the type of seal proposed by the operator may not be the most practical. Because the portal is lower in elevation than the other portals, it will receive the greatest hydraulic head that develops. Ground water blocked at the portal could route through joint fractures to the canyon walls resulting in uncontrolled mine discharge.

The type and size of discharge structure that will be needed for the portal seal can not be determined at this time, since ground water conditions are changing during mining and will not reach steady state conditions until after mine closure.

Due to these circumstances it would be more prudent for the operator to commit to emplacement of the portal seal using the best technology available at the end of mining.

The commitment should entail future development of designs for the portal seal to meet the parameters of ground water discharge volume and quality that may be produced at the cessation of mining.

Determination of Completeness:

UMC 817.50      Hydrologic Balance: Underground Mine Entry and Access Discharge-DWD

Since it is difficult to predict the hydrologic conditions that will exist at the portal site at the cessation of mining, the applicant should commit to seal the portal using the best technology available during the time of closure and treat ground water discharge that exceed the established limits in accordance with the regulations.

dwd

cc:

W. Hedberg  
S. Linner  
K. Wheeler  
R. Summers

1299-42