

0044

February 19, 1988

TO: File

FROM: Randy Harden, Reclamation Engineer *R.H.*

RE: Proposed Waste Disposal Facility, Summit Coal Company, Boyer Mine, ACT/043/008, Folder #2, Summit County, Utah

SUMMARY

The proposed facility is not considered to be sufficiently adequate for approval. The following review discusses concerns regarding the construction, operation, and reclamation of the waste disposal site.

UMC 784.19 Underground Development Waste - JRH

Some of the information required in order to determine the proposal is not considered to be complete. With regard to this section of the regulations, the operator must still address the following:

1. The character of the bedrock and any adverse geological conditions in the disposal area.
2. A survey identifying all springs, seepage and ground water flow observed or anticipated during wet periods in the area of the disposal site.
3. A survey of the potential effects of subsidence of the subsurface strata due to past and future mining operations.

The proposed drawings and text provided do not include sufficient descriptions or detail to describe the geotechnical investigation, design, construction, operation, maintenance and removal of the site and facilities. As an example, the plans do not indicate how haul roads will be routed in order to negotiate the hillside and the configuration of the waste disposal piles. Without

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routing and scheduling of these roads, it appears to be difficult to construct the waste disposal area in accordance with the proposed plan.

The operator has not provided foundation soils information with the proposal. Topsoil and subsoil depths should be determined prior to construction in order to determine the mass balance and the quantities available for reclamation.

The operator has proposed that a 12" layer of clay be installed in conjunction with the pad excavation. Until such time as the infiltration and soils characteristics are determined for the design of the facilities, it is unknown as to whether or not this clay layer will be required. It would appear, however, that the Division would not want to see such a clay layer installed as part of the foundation for the waste material. The layer would only serve to concentrate any ground-water flow along the clay boundary and through the waste material. In looking at how the waste facilities are currently layed out, this would allow the water to pass along the clay layer and collect soluble contaminants in the waste material, and then discharge them at or near the surface at the toe of the slope of the waste pile.

UMC 817.46 Hydrologic Balance - Sediment Ponds - JRH

The operator has proposed an incised pond with inslopes of 1:1. In accordance with part (m) of this section, no slopes shall be designed to be steeper than 2h:lv. The operator must redesign this structure in order to be considered in compliance with the requirements of this section.

UMC 817.103 Backfilling and Grading: Covering Coal and Acid- and Toxic-forming Materials - JRH

The operator has not collected sufficient information for the design of the waste disposal facility to demonstrate prevention of surface or ground-water contamination. Sufficient soils, groundwater and climatic information must be provided to demonstrate that the design will protect against the upward migration of salts, exposure by erosion, formation of acid or toxic seeps; and will provide adequate depth for plant growth, or other conditions and requirements to prevent water contamination.

jr
cc: S. Linner
R. Summers
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