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NOTE FOR: Mark Haisfield WMLU

FROM: Steve Smykowski WMLU

SUBJECT: GEOTECHNICAL ENGINEERING RECOMMNEDATIONS ON THE SPOOK, WYOMING DRAFT CADSAR (OCTOBER, 1986)

Enclosed is a copy of geotechnical engineering comments on the Spook draft CADSAR with staff recommendations. These recommendations are intended to be useful to DOE in their preparation of the site Environmental Assessment (EA) and Remedial Action Plan (RAP). If you have any questions regarding these recommendations, please call me on x74109.

> Original Signed By Steve Smykowski WMLU

Enclosure: As stated

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GEOTECHNICAL ENGINEERING STAFF RECOMMENDATIONS ON THE SPOOK, WYOMING DRAFT CADSAR (OCTOBER, 1986)

1. Section 4.1, Stabilization-In-Place (SIP), Page 11:

The CADSAR indicates that if the SIP alternative is chosen, the stabilized pile would be covered with overburden at a later date during reclamation of the Spook mine by the State of Wyoming. Recognizing the States involvement with the remedial action construction, the staff offers the following recommendations:

a) Placement of the overburden fill should begin soon after placement of the tailings and radon barrier has been completed to assure that the stabilized pile is protected from erosion.

b) The surface of the reclaimed pile and overburden fill should be brought up to and graded to the natural ground surface to avoid ponding of water above the tailings.

2. Section 4.2, Stabilization-On-Site (SOS), Page 11-12:

Several geotechnical engineering concerns related to the SOS alternative need to be addressed before the staff can make a determination whether SOS is a feasible alternative. These concerns include:

a) stability of the pile located adjacent to the open pit;

b) the effects of gullies eroding headward toward the pile from the pit caused by erosion of the steep pit slopes;

c) the magnitude of settlements and the resulting effects on surface drainage and the radon barrier cover.

Since these concerns have not been addressed in the CADSAR, the staff recommends that they be addressed in subsequent documents such as the EA and RAP, and that the appropriate field characterization and data collection be conducted if SOS is chosen as the preferred alternative.