



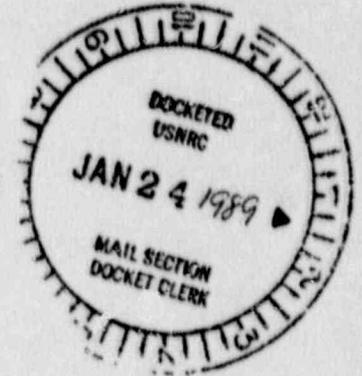
Department of Energy
Albuquerque Operations Office
P.O. Box 5400
Albuquerque, New Mexico 87115

RETURN ORIGINAL TO PDR, HQ.

JAN 20 1989

AIRBORNE EXPRESS

Mr. Edward F. Hawkins
Licensing Branch 1
Uranium Recovery Field Office
Nuclear Regulatory Commission, Region IV
P.O. Box 25325
Denver, CO 80225



Dear Ed,

Enclosed for NRC review and concurrence are five (5) copies of the final Remedial Action Plan (RAP) for the Mexican Hat, Utah, site (Remedial Action Plan and Site Design for Stabilization of the Inactive Uranium Mill Tailings Site at Mexican Hat, Utah, Text and Appendices A, B, C, D, and E (3 volumes) dated July 1988). Also enclosed for NRC review and concurrence are five (5) copies of Modification Number 1 to the Mexican Hat RAP. This modification provides details on incorporating the Monument Valley, Arizona, tailings into the Mexican Hat disposal cell and revises the groundwater compliance strategy for the Mexican Hat disposal site.

In order to support your review of the RAP and RAP modification, five (5) copies of each of the following documents are enclosed:

- o Information for Reviewers for Mexican Hat, Final Design for Construction, dated June 1988 [Note: This document supports only the RAP, not the RAP modification]
- o Mexican Hat Information for Bidders, Volumes I and II, dated June 1988
- o Monument Valley Information for Bidders, Volume III, dated June 1988
- o Monument Valley Co-Disposal at Mexican Hat Calculations, Final Design for Review (one volume), dated September 1988
- o Mexican Hat Calculations Final Design for Construction, Volumes I through IV, dated June 1988

Responses to NRC's April 14, 1988, comments on the preliminary final RAP were provided by letter dated June 22, 1988. Please note that no responses have been provided for your October 16, 1987, comments on the

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Certified By Mary C. Hood

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report entitled "Evaluation of Rock for Riprap at Mexican Hat, Utah". These comments are no longer applicable since new rock borrow sources have been selected since that report was prepared. All calculations and data necessary to support use of rock from the new borrow sources is included in this submittal.

Attachment 1 to the RAP modification is an executive summary which summarizes the proposed remedial action for the Mexican Hat and Monument Valley uranium mill tailings and summarizes how the proposed remedial action will comply with applicable Environmental Protection Agency (EPA) standards. In addition, the executive summary presents design features and remedial action options which were considered and rejected during the development of the final design for Mexican Hat and Monument Valley.

The proposed remedial action includes consolidation of all tailings and contaminated materials from both the Mexican Hat and Monument Valley sites into a single embankment at the Mexican Hat site. The stabilized pile would then be covered with a two-foot-thick radon barrier material amended with twelve percent sodium bentonite, a six-inch layer of filter rock and bedding material, and a one-foot-thick layer of small diameter rock for erosion protection. Ditches will be constructed to divert surface water runoff into the existing arroyos near the embankment.

Compliance with EPA standards for cleanup and control of the residual radioactive material will occur through consolidation of all such material into the discrete engineered disposal cell. The cell will be covered with a radon/infiltration barrier composed of highly compacted bentonite-amended soils, a bedding (filter) layer of sand, and a rock erosion barrier. The surface will be contoured to encourage runoff, thereby minimizing infiltration through the tailings. This cover system will also limit the release of radon-222 from the tailings to below the EPA standard of 20 picocuries per square meter per second. All materials will be durable and will be placed to promote long-term performance in the absence of maintenance. The pile morphology has been designed to provide slope, settlement, and deformation integrity.

Compliance with proposed EPA groundwater standards for the disposal cell will be achieved through implementation of the site-specific groundwater protection standards in 40 CFR Part 192.02(a)(3). The disposal cell will meet the concentration limits defined as the proposed EPA Maximum Concentration Limits (MCLs) or background water quality, whichever is higher, in the Honaker Trail Formation (the uppermost aquifer) at the Point of Compliance (POC).

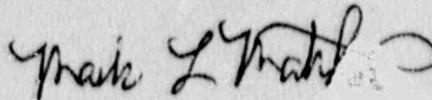
For ease of review, DOE recommends that the reviewers begin by reading the executive summary which is provided as Attachment 1 to the RAP Modification. The RAP modification should be reviewed prior to the RAP since the modification explains which portions of the RAP have been changed and need not be reviewed. Prior to beginning a review of the specifications and drawings, it might prove helpful to review Attachment 6 to the RAP modification.

Edward F. Hawkins

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In order to maintain the current remedial action schedule for Mexican Hat and Monument Valley, we request NRC concurrence with both the RAP and the RAP modification by March 10, 1989. Any questions regarding this transmittal should be directed to Debbie Mann of my staff at FTS 846-1243.

Sincerely,



Mark L. Matthews
Acting Project Manager
Uranium Mill Tailings Project Office

w/o Enclosures

cc w/o enclosures:
K. Agolino, TAC
D. Gillen, NRC-HQ
S. Grace, NRC-URFO
J. Oldham, MK-F