

MEMORANDUM

Date : DEC 01 1995

Reply to
Attn of : DOE Oakland Operations Office (ERD)

Subject : NEPA Categorical Exclusion (CX) Determination for Removal of 12,000 Cubic Yards of Sand Contaminated with Soluble Salts and Arsenic from the Geothermal Test Facility (GTF) at East Mesa, California

To : James T. Davis, AMEM

In accordance with 10 CFR 1021, Subpart D, I have determined that the project described below satisfies the requirements for exclusion from further NEPA review.

CX DETERMINATION**NEPA Document Number:** GTF-EM-95-01

Proposed Action: Remove approximately 12,000 cubic yards of sand contaminated with soluble salts and arsenic from an existing evaporation basin and truck it 60 miles for disposal at an existing Class II-I facility. Any material that qualifies for disposal in a Class III landfill may be diverted to closer landfills.

Location of Action: The evaporation basin is at the East Mesa GTF in Imperial County, California. The GTF is located about 20 miles east of El Centro and 1.5 miles north of Interstate Highway 8. The Class II-I disposal facility is located 30 miles northwest of El Centro.

Background: The U. S. Bureau of Reclamation established the East Mesa GTF in 1968. DOE became operator in 1978. Geothermal research at this site ceased in 1987.

The GTF includes a 6-acre PVC-lined evaporation basin installed in 1972 to temporarily store and evaporate geothermal brine. A protective layer of sand blankets the PVC liner. Evaporation of the brine left these sands contaminated with salts (primarily sodium chloride) and minerals that had once been dissolved or suspended in the brine. The basin sediments are now damp to dry.

A grid sampling of the basin sediments in 1992 found no RCRA waste, but did imply that the soluble salts include about 1300 pounds of arsenic. Because only

10 feet of permeable sand separate these sediments from a non-potable, but potentially usable aquifer (~1200 ppm TDS), East Mesa is considered a poor site to landfill this material. The most effective long-term solution is to excavate the contaminated sand and truck it to an appropriate facility for disposal.

Description of Proposed Action: Earth moving equipment would excavate an 8" to 12" thick layer of contaminated sand as well as the underlying PVC liner. Trailer trucks would transport all or part of this material 60 miles to an existing Class II-I disposal facility near Westmoreland. Material that qualify for disposal in a Class III landfill will be disposed of at a facility such as those near Holtville or Calexico. Removing these 12,000 cubic yards of waste would require about 860 truck trips totaling (if shipped to Westmoreland) about 103,000 truck miles. Based on typical accident rates per truck mile driven, hauling to Westmoreland will have a 1/170 chance of killing someone in a vehicular accident. Because of the shorter haul distance, the risk should be 50 to 75% lower for disposal completed at a Class III landfill. The Colorado River Basin Regional Water Quality Control Board believes that the overall accident risk from excavating and hauling this material is outweighed by the benefit of removing the GTF basin's potential for contaminating a potentially usable aquifer.

After post-excavation sampling has shown that residual contamination levels are acceptably low, the perimeter berms are to be bulldozed into the basin, and some additional sand quarried and trucked in to restore the site to approximately its natural topography.

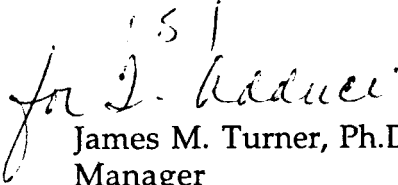
Although budget constraints are likely to spread these removal activities over 11 months commencing in 1996 or 1997, the actual work could be completed in a fraction of this time. The total estimated cost is \$1,600,000, primarily for disposal fees.

There are no extraordinary circumstances related to this project that may affect the significance of its environmental effects. The project is not connected to other actions with potentially significant impacts, is not related to other proposed actions with cumulatively significant impacts, and is not precluded by 40 CFR 1506.1 or 10 CFR 1021.211. The proposed actions do not threaten a violation of applicable statutory, regulatory, or permit requirements or DOE Orders; require siting and construction or major expansion of waste storage, disposal, recovery, or treatment facilities; disturb hazardous substances that preexist in the environment such that there would be uncontrolled or unpermitted releases; and will not adversely affect environmentally sensitive resources.

CX to be Applied: 10 CFR 1021, Subpart D, Appendix B 6.1. Removal actions under CERCLA (including those taken as final response actions and those taken before remedial action) and removal-type actions similar in scope under RCRA and other authorities (including those taken as partial closure actions and those taken before corrective action), including treatment (e.g., incineration), recovery, storage, or disposal of wastes at existing facilities currently handling the type of waste involved in the removal action. These actions will meet the CERCLA regulatory cost and time limits or satisfy either of the two regulatory exemptions from those cost and time limits (National Contingency Plan, 40 CFR part 300). These actions include, but are not limited to: (a) Excavation or consolidation of contaminated soils or materials from drainage channels, retention basins, ponds, and spill areas that are not receiving contaminated surface water or waste water, if surface water or ground water would not collect and if such actions would reduce the spread of, or direct contact with, the contamination.

I have determined that the proposed action meets the requirements for the CX referenced above. Therefore, I have determined that the proposed action may be categorically excluded from further NEPA review and documentation.

Comments and/or questions relating to this project should be directed to Hemant Patel at (510) 637-1568.


James M. Turner, Ph.D.
Manager

cc: Paul Zielinski, EM-443
Rod Cummings, EM-443

bcc: Hemant Patel, ERD
William Holman, ERD