

Department of Energy

Field Office, Albuquerque Los Alamos Area Office Los Alamos, New Mexico 87544

APR 12 1994



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Jim Piatt Waste Management Division New Mexico Environment Department 1190 St. Francis Dr., P. O. Box 26110 Santa Fe, New Mexico 87502

Dear Mr. Piatt:

The Department of Energy/Los Alamos Area Office (LAAO) would like to request a proposal for containment of Total Petroleum Hydocarbon (TPH) at Solid Waste Management Unit (SWMU) 3-010(a), Technical Area (TA) 3-30, Operable Unit 1114. This SWMU, which is contaminated with mercury above action levels in soil, is scheduled to begin Voluntary Corrective Action (VCA) remediation for removal of mercury under Resource Conservation and Recovery Act (RCRA) Subtitle C regulations on April 14, 1994. We have described the final remediation strategy and schedule for soil removal that will be initiated on this date in our letter to your office, February 28, 1994. Soil contaminated with only TPH is expected to be reached within two weeks of beginning soil excavation. We propose a meeting to discuss the containment of TPH at a date prior to this event. We offer the following information as a preface to this proposed discussion:

Because TPH is not a hazardous waste, no cleanup level exists for remediation of this material at non-underground storage tank related RCRA SWMUs. The currently approved cleanup level of 100 mg/kg, which was taken from New Mexico Underground Storage Tank Regulations (USTR) and proposed on February 26, 1993, in <u>Sampling and Remediation Plan (SRP)</u> for Mercury Contaminated Soils at TA-3-30, is not appropriate for this VCA because the proximity to groundwater criterion is not met at this site¹. As noted in the SRP on page 3-4, fifth paragraph:

"This standard is not directly applicable to the site because the source of TPH was not a release from an underground storage tank. The 100 mg/kg level should, however, be protective of water quality and will be used as a cleanup level."²

¹Groundwater in the Main Aquifer, the source of drinking water supply for the Los Alamos area, is projected to be on the order of 1000 feet at this SWMU.

²The plan was approved by NMED on April 26, 1993.



The concern with regard to protection of water quality has been addressed by surface water sampling activity which occurred according to the approved SRP during three run-off events in the summer of 1993³. Analytes in the samples collected included TPH, mercury, and radioncludes. The results of the sampling, which were given to your staff on January 26, 1994, showed TPH levels upstream and downstream of SMWU 3-010(a) to be below the method detection limit of the analysis (0.1 mg/L). This indicates that existing levels of TPH at the site are not a threat to the surface water quality. Our sampling data indicates that at surface, these TPH levels exceed 37,000 mg/kg.

Soil samples were also collected at SWMU 3-010(a) according to the approved SRP. The results of the sampling, which were also given to your staff on January 26, 1994, indicate that TPH is present to a level of at least 7000 mg/kg at a depth of two meters, while mercury is present above action levels to a depth of less than one meter.

Spatial presentation of the TPH data indicate that high levels of TPH are present over a limited horizontal and vertical extent of the SWMU area. Excavation of soil beyond a depth of 1 to 1.5 meters (approximately 3 ft.) will create worker hazards and therefore requires special health and safety permits and precautions.

Because sampling data indicate that surface water quality is not currently threatened by high levels of TPH at SWMU 3-010(a), and because health and safety concerns become important for removing soil at certain depths, we propose a new approach for considering containment of TPH. This proposal includes the following:

- Removal of soil until mercury is found to be below action levels (20 mg/kg), a depth we project to be near three feet.
- Confirmatory sampling subsequently performed to verify the level of mercury and to establish the remaining level of TPH with no further remediation of this substance.

³The sampling dates were May 21, May 24, and July 20, 1993.

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In filling of the excavated area with clean dirt followed by stabilization with vegetation and other appropriate material.

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Post-remediation sampling of stream water for TPH and other water quality parameters such as total dissolved solids.

Under this proposal, the primary goal of removing mercury to standards under RCRA Subtitle C will be met. Because the highest levels of TPH will also be removed in the soil containing mercury, and the site will be restored to protect against erosion, the public will be protected from the effects of TPH, and TPH should still make a non-detectable contribution to run-off.

Again, we recommend a meeting at your earliest convenience to discuss this proposal. If you have immediate questions about our suggestions, please call me at 665-7203. To help arrange a time to meet for discussion, please call Bonnie Koch, Scientech, LAAO, at 667-5793. We hope you will consider our proposal and we look forward to talking with you soon.

Sincerely,

Theodore J. Taylor Program Manager Environmental Restoration Program

LESH:1TT-003

CC:

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