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M E M O R A N D U M

TO: Benito J. Garcia, Chief, HRMB
FROM: Steve Yanicak, NMED DOE OB Site POC
DATE: July 28, 1995
SUBJECT: NMED DOE OB Review of Expedited Cleanup Plan for SWMU 18-001(b)

The DOE Oversight Bureau (DOE OB) has reviewed the subject document. The following comments are provided for the purpose of communicating the results of the DOE OB review. These comments are not provided or intended for the purpose of representing the regulatory position of the New Mexico Environment Department.

The first revision of the expedited cleanup plan for SWMU 18-001(b) as of April 1995 calls for the in place decommissioning of the sewer line and the eleven manholes along the length of the line. [Annex 6.9: RFI Analytical Results for SWMU 18-001(b)] Samples of sediments collected from two of the manholes exceeded the residential-use Screening Action Levels (SAL) for lead (MH-176: 480 mg/kg; SAL, 400 mg/kg) and barium (MH-169: 9400 mg/kg; SAL, 5600 mg/kg). Other contaminants exceeding SALs found in manhole sediments are Bis(2-ethylhexyl) phthalate (MH-170: 34.0 µg/l; SAL, 4 µg/l), Benzo(a)pyrene (MH-160: 0.350 mg/kg and MH-176: 0.430 mg/kg; SAL, 0.1 mg/kg), and Benzo(b) fluoranthene (MH-176: 0.750 mg/kg; SAL, 0.7 mg/kg). Although the volume of contaminated sediments in the manholes is small, action to isolate the contaminants from the environment is recommended by this plan. Rather than remove the average half-liter of sediments found in some of these manholes, it has been recommended that the manholes be filled with enough concrete to prevent further flow through the sewer lines and immobilize the contaminated sediments.

After review of this document, my concerns and recommendations are as follows:

1. Are contaminated sediments restricted to the manholes? (2.2.2, P2, Pg 5) Although the report states that the manholes act as catchments for sediments and fluids, low points/areas along the sewer line may contain sediments as well. Since the stream flow that recharges the shallow canyon aquifer is considered ephemeral, the admittedly broken and cracked sewer line could admit ground water during aquifer



recharge. After mixing with the contaminants, this water might then re-enter the aquifer through the breaks if the ends of the lines are plugged with concrete.

2. Is there any current data to suggest that soil or sediments below the manholes or cracks are also contaminated? Water samples taken from manholes MH-173, MH-175, and MH-177 contain elevated levels of lead, barium, and 1,2-Dichloroethane (which are below SALs but well above background). The monitoring well PCO-3, which is downgradient from the wasteline, is showing levels of uranium, lead, barium, and chloride which exceed EPA and State WQCC regulations (ES Report; LANL, 1993). This information would suggest that there may be a connection between the leaks in the line and the contaminated ground water at PCO-3.
3. Have all the breaks and cracks in the sewer line been documented? With the cracks located, then characterization of the surrounding soil would be appropriate to determine if contaminants are present (since any contamination of the soil from the sewer line would be most highly concentrated near these major breaks). The nature of these contaminants, should they exist, would in turn elucidate whether any connection exists between the sewer line and the contaminated ground water at PCO-3.

It is our recommendation that major cracks and breaks in the sewer line be located by tracer test and/or video log before the proposed cleanup plan is initiated. With the concrete in place, location of any major breaks in the line by these methods would be far more difficult.

If there are any questions, please contact me or John W. Garvey (672-3151).

Reviewed by: John W. Garvey, ^{JB} Michael Dale, ^{MRD} and Harvey Decker, ^{ALD}

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