



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

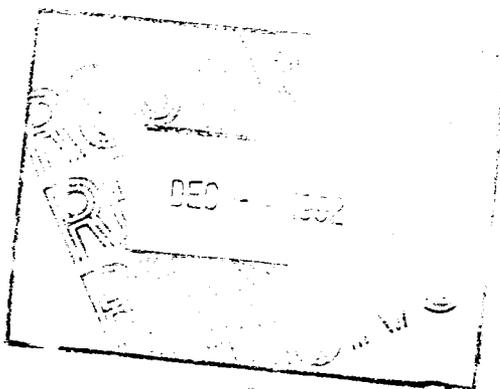
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w/ me pronto*

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Jerry L. Bellows
Los Alamos Area Manager
Department of Energy
Los Alamos Area Office
Los Alamos, New Mexico 87544

Re: Sampling and Remediation Plan for
Mercury Contaminated Soils at Ta-3-30
Los Alamos NM0890010515

Dear Mr. Bellows:

The Environmental Protection Agency (EPA) has reviewed the Sampling and Remediation Plan for SWMU Number 3-010 for which Los Alamos National Laboratory has proposed a Voluntary Corrective Action. EPA has found the proposed Sampling and Remediation Plan to be deficient. Enclosed is a list of deficiencies which you have until December 30, 1992, to respond to.

Should you have any questions, please contact Barbara Driscoll of my staff at (214) 655-6785.

Sincerely,

William K. Honker, P.E.
Chief
RCRA Permits Branch (6H-P)

Enclosure

cc: Benito Garcia, NMED
Bruce Swanton, NMED
Jim Piatt, NMED
Al Tiedman, ADO, LANL, MS A120

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LANL HSWA F01001114 TA-3-010

List of Deficiencies

1. The sampling strategy as presented (4.2 Sampling Strategy pp.23-31 through 5.1 Data Evaluation pp.31-34) is overly complicated and would require two steps prior to complete evaluation of the site. In addition, a single composite sample created from samples across rows or down columns as proposed in the Sampling Plan would dilute samples too much, and would not give an accurate view of the extent of contamination. EPA would prefer LANL choose one of the following approaches to sampling in order to evaluate the extent of contamination for removal of material:

- A. LANL could use a one meter grid and form one composite sample within each grid by choosing three or five samples within each meter grid which would be combined into one composite sample. If the composite sample produced is above the action level, then the entire grid is removed to a predetermined level (possibly 6" or 12"). The grid is then resampled, and if found not to be above the action level, then no more soil is removed. LANL should begin sampling near the hot area and proceed down the slope. The grid size could be expanded as LANL approached the stream bed. Discrete samples would still be collected as indicated in the Sampling Plan for Column 3, Rows 3-5.
- B. LANL could take discrete samples based on node points as established in the current grid pattern. The proposed grid size with the exception of the nodes along Column 3 could be expanded. Discrete samples would be taken until samples no longer exceeded the proposed action level. The entire grid as proposed by LANL would not need to be sampled, rather samples would be taken until samples lower than the action level were found. The area to be removed would be bounded by samples which were found to be below the action level for Mercury. LANL would predetermine that a square meter surrounding each discrete node (found to be above the action level) would be removed. It would be better to be conservative in the amount of material determined to be removed.

LANL may want to use one of its mobil laboratories for this exercise, as this would provide a quicker turn-around for determining the extent of contamination, and during the soil removal would be a faster way of confirming that all contaminated soil has been removed.

2. It is unacceptable to composite the ten samples taken along the stream bed into two samples. LANL should collect discrete samples at each location, sampling catchments whenever possible. As previous sampling in the stream bed has indicated low levels of mercury the number samples may be reduced. In addition, it would seem appropriate considering the age of this SWMU that LANL should locate the first wetland area (artificially produced or not) on

this drainage system and take a soil sample within the wetland.

3. The action level of 80 mg/kg as proposed by LANL, even though this is in the approved Installation Work Plan, is higher than the action level as proposed in Subpart S which is currently being used as guidance by EPA. Therefore, EPA requests that LANL use an action level of 20 mg/kg to be consistent with Subpart S. This action level is also more appropriate in view of the concerns of the State of New Mexico, and the State's current problems with mercury in surface water.

4. The Sampling Plan should indicate how samples are to be collected (stainless steel trowel, shovel, split spoon or Shelby tube, etc.). Appendix B, Standard Operating Procedures (SOP), describes all the possible methods of collection. The sampling plan should indicate which method LANL is using for collection and then site the SOP for details. For example, five surface soil samples will be taken within each meter grid, one at each grid node and one in the center. These samples will be collected from 0-6" using a stainless steel trowel. All samples from a single grid will be composited in a stainless steel bucket.

5. LANL shall provide more details about the results of the previous investigation, such as how the samples were collected, and depth of collection.

6. The choice of soil washing in-situ as a remedial treatment is not acceptable, as the potential exists for spreading the contamination within the streambed. Soil washing may be used within the technological limits as defined in the workplan after the contaminated soil is removed from the streambed.

7. LANL shall provide a sampling schedule.

8. LANL shall provide a Health and Safety Plan.