



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
215 Fremont Street
San Francisco, Ca. 94105

23 MAR 1968

Tom Berkins
California Regional Water
Quality Control Board
San Francisco Bay Region
1111 Jackson Street, Room 6040
Oakland, CA 94607

Dear Mr. Berkins:

Enclosed are the Environmental Protection Agency's (EPA) comments on the revisions prepared by IT Corporation on the Remedial Investigation Sample Plan for Naval Air Station Moffett Field. The comments are on the Proposal for Investigation Landfill, Site 1 and 2, Proposal for Additional Monitoring Wells at Fuel Farm (Site 5), and Proposal for Investigation at Site 14.

If you have any questions please give me a call at (415) 974-7836.

Sincerely,

A handwritten signature in cursive script that reads "Lewis Mitani".

Lewis Mitani
Remedial Project Manager
Federal Enforcement Section

Enclosure

cc: Chloe Jue, WESDIVNAVFACENGCMD

304
EPA/RWQCB 4

COMMENTS

Comments are provided on the latest revisions to the RI Work Plan and Sampling Plan prepared by IT and submitted by the Navy on 2-19-88. The following comments address the adequacy of IT's proposal for landfills (sites 1 and 2), Fuel Farm (site 5) as well as Tanks 19 and 20 (site 14).

It should be noted that the proposed investigations by Moffett NAS are to be considered preliminary efforts to characterize contamination at these sites. The proposed investigations will indicate the type of contamination present at these sites; however, additional work may be needed to complete the characterization of contaminants in support of the overall remedial investigation/feasibility study.

As discussed in the USEPA Guidance on Remedial Investigations Under CERCLA (June 1985): "Site characterization is the most critical portion of the remedial investigation process. The objective of site characterization is to collect and analyze enough information to determine the:

- . necessity for remedial actions
- . extent of any remedial actions
- . feasibility of potential remedial actions."

Site 1 - Landfill.

a. Three wells are proposed to identify leachates and characterize refuse in the landfill. Three shallow wells will provide an indication of the lateral extent of leachate/contaminant migration through the landfill; however, sample results and borehole information from these wells may indicate the need for additional characterization. The proposed wells do not address vertical extent of contamination. The well locations as proposed by IT do not appear to be suitable sited since they are located toward the outer edge of the landfill. The proposed well locations shown in Figure 1 of the proposal appear to have been arbitrarily selected and may not provide optimum information for refuse characterization or determining the maximum levels and types of leachates present. It is not clear whether the well locations as shown in Figure 1 are final or will be subject to change pending the results of a seismic survey which is under consideration. The proposal should state clearly whether a seismic survey will be performed and what criteria will be used to locate leachate wells.

b. The proposal does not clearly state how the leachate wells will be completed, nor to what depth and at what frequency soil samples are to be collected beneath the refuse. It is implied that the initial boring for the leachate wells will extend 20 feet below the base of the landfill. Procedures for conducting slug tests in the proposed landfill borings/wells are not described nor are procedures for backfilling such borings prior to their completion as leachate wells. Presumably lab permeability tests will be performed only for soil samples

collected in borings intended to be completed as monitoring wells along the perimeter of the landfill. Why not for soil samples collected beneath the refuse? The need to drill 20 feet below the base of the landfill is also questioned since this may enhance downward migration of leachates in the event that difficulties are encountered in completing the borehole as a leachate well. Drilling through the base of the landfill can be performed during a later phase of the investigation, if necessary. Appropriate measures must be taken during drilling and well construction to prevent downhole contamination.

c. Considering the site constraints imposed by the adjoining salt evaporator ponds, the proposed locations of the geophysical boring and four monitoring wells may not provide information on lateral migration of leachates toward the adjoining ponds/sloughs. Such information may require completing monitoring wells at depths shallower than the A-zone aquifer to determine the effectiveness of side wall materials at the landfill in containing leachates. An investigation of the vertical extent of contamination is also required. The information obtained from the geophysical boring locations and four monitoring wells will be used to evaluate the extent of contaminant migration and will indicate whether additional work will be required to characterize contamination.

Site 2 - Landfill.

a. Comments on leachate well locations, their completion, seismic survey, lab permeability, and lateral leachate migration are the same as described for the Site 1 landfill.

b. The locations of the proposed A-aquifer wells and the geophysical boring will provide a preliminary evaluation of contaminant migration. This information will be used to determine the need for additional investigation if needed.

Site 5 - Fuel Farm.

a. The proposed monitoring well system is intended to detect tank leakage. While leakage may be indicated, characterization of the extent of contamination may require additional work.

b. It is assumed that the 10 monitoring wells proposed at individual tanks or tank pairs will be completed in the A-aquifer as described in the Sampling Plan of December 1987, which also includes the installation of Phase II A-aquifer wells W5-11Q and W5-12A. This information needs to be confirmed in the Sampling Plan. In addition, other Phase I wells W5-10(B1), W5-4(B2) and W5-5(C) will be installed as described in the Sampling Plan.

Site 14 - (Tanks 19 and 20).

We are in general agreement with the proposed investigative plan for Site 14.