



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

December 17, 1993

Mr. Stephen Chao
Naval Facilities Engineering Command
Western Division
900 Commodore Way, Bldg. 101
San Bruno, CA. 94066

Re: Draft Background Soil Sampling Field Work Plan, dated November 19, 1993

Dear Mr. Chao,

The U.S. Environmental Protection Agency (EPA) has received and reviewed the subject document. Comments follow. It has been reviewed by EPA's Regional Toxicologist, Dan Stralka. Call me at 415-744-2383 if you have any questions.

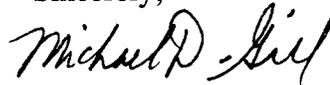
1. Performing soil sampling to establish backgrounds for metals at this time in the project is of questionable added value. Moffett Field's remedial investigations for soils have been completed in the OU1 and OU2 Remedial Investigation reports. It is understood that the effects of metals in the site wide remedial investigation are a concern. But it is also EPA's concern that defining on-site background levels at this time may cause possible questioning of the operable units' investigations and slow down the process. The existing background values (USGS, Hetch Hetchy) may not be perfect, as they were not established using on-site data, but EPA feels they are workable.
2. Normally, it would make sense to establish background values for metals concentrations in soil by sampling at the site where remediation is being performed. This reduces errors caused by variability in hydrogeology, soil types and other factors that may exist even short distances away from the site. But the idea of using data from an industrial area may provide data of questionable value. If sampling is to be done, the locations must be chosen carefully to avoid setting background levels that may not be protective of human health and the environment.
3. Figure 2: The sampling locations presented here for determining background appear problematic for at least three reasons.
 - a. It is hard to establish background in an industrial area when samples are taken in depths of less than 10 feet.
 - b. Agricultural lands should be avoided when establishing background values.

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c. Locations SBBG-008 through SBBG-012 are locations that have been subject to extreme exposure to exhaust from aircraft and automobiles, aided by the general wind direction in this area. Aircraft take off almost exclusively in a northwesterly direction at Moffett Field. This is opposite the prevailing direction of the wind. Therefore, depositions of exhaust components will accumulate at much higher levels in these areas at the end of the runway.

4. Section 4.2.3: This section says that "most of the samples collected for estimation of background metal concentrations will likely be clay-rich soils". These types of soils, because of lower mobility of metals in clays, will contain obviously higher concentrations of metals and therefore present a false reading of background concentrations. Sample collections should be taken from as many soil types as exist on-site in order to avoid any biased results.
5. Figure 3: This procedure calls for a review of the data relative to the data quality objectives (DQOs). These DQOs should be defined in this report so that the proper data interpretation can be made.

Sincerely,



Michael D. Gill
Remedial Project Manager
Federal Facilities Cleanup Office

cc: Elizabeth Adams (RWQCB)
C. Joseph Chou (DTSC)
Ken Eichstaedt (URS)
Josh Marvil (PRC) (Fax)