



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
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November 8, 1991

Larry Nuzum
Naval Facilities Engineering Command
Southwest Division
Code 1811
1220 Pacific Highway
San Diego, California 92132

Subject: EPA Review of RCRA Facility Assessment
Sampling Visit Work Plan
El Toro MCAS

Dear Mr. Nuzum:

This letter transmits our comments on the Draft Sampling Visit Work Plan for El Toro Marine Corps Air Station.

If you have any questions regarding the attached comments or if you wish to discuss other matters related to the RFA, please contact John Hamill of my staff at (415) 744-2391.

Sincerely,

A handwritten signature in black ink that reads "John Hamill for".

Julie Anderson-Rubin, Chief
Federal Enforcement Section II

cc: Lt. Commander Serafini, USMCAS El Toro
Manny Alonzo, DHS
Ken Williams, RWQCB

DRAFT
TECHNICAL REVIEW
OF
RCRA FACILITY ASSESSMENT
SAMPLING VISIT WORK PLAN
EL TORO MCAS

We have the following comments to make on the August 26, 1991 draft Sampling Visit Work Plan (SVWP) for El Toro Marine Corps Air Station (MCAS).

1. As in similar exercises for Yuma and Barstow, the DQO questions are not being answered here. This is a document produced from the traditional judgmental approach to site investigation. There is no attempt to quantify the expected confidence levels from the sampling and analyses planned. There is no list of "chemicals of concern." There is no attempt to cite ARARs or some other "exposure units" to help define the necessary detection limits and therefore the desired analytical methods. Site homogeneity is assumed at each SWMU, since only one boring is to be placed there to determine what the contaminants are.
2. How confident is the Navy in the quality of data used for SWMU selection? Has any validation been done? Can this be used to "stratify" sampling? What about "background" areas, sites where no record or evidence of contamination exists--shouldn't some of these samples be taken to establish a baseline level?
3. It seems that the Navy has already prepared a preliminary conceptual site model, since this SVWP focuses only on soil contamination. The sampling doesn't call for testing the top two inches of soil for possible contaminants, so apparently windblown soil's ingestion/inhalation are not considered significant health threats. If the purpose of this Work Plan is to determine the types of contamination, and later to determine the extent of the contamination, there is no statement by the Navy of the

likelihood of missing "hotspots" or chemicals of concern using the proposed sampling and analysis scheme. But if only the CLP TCLs and TALs and their limits of detection are used, there may well be other (Non-CLP) chemicals missed. Also, some CLP TCLs and TALs at concentrations lower than CRDLs/CRQLs may be missed. We understand that the Navy requirements are for Level IV at these sites, but the current scheme will cost (our estimate) \$900,000 for the samples with the appropriate QC; validation will put this over the million-dollar mark. This does not count the field screening with VOA and hNu instruments, or the cost of drilling all the holes to collect the samples, either. We would rather see some more planning up front to answer the DQO question, "What question are we trying to answer?" than spend all this money in this way now.

4. Of the 299 SWMUs, only 157 are proposed for sampling and analysis; the rationale for not testing the other 142 sites is not well-stated, and appears judgmental based on collected historical data. Page 1-1 states the purpose of sampling "to verify whether a release has occurred at a SWMU or area of concern," not to assess the extent of potential contamination. But if all SWMUs are not tested, how can the untested ones be verified? What is the likelihood that by not testing them, some significant contamination may remain undetected?
5. An examination of Figures 3 through 79 show many SWMUs, but some are not listed on these figures. About 70 are not shown at all, while sites 11, 279, and 280 are shown at several locations. Tables 4-1 and 4-2 list the proposed SWMUs to be sampled, but this is half the 142 sites noted in Item 4 above that are not proposed for sampling. Why not show the sites as well as explain why they are not to be sampled?
6. Section 4.2 says the objective of the sampling visits is to "determine if a release has occurred." "Judgmental" sampling is to be performed. There is no statement of the level of confidence or the size of hotspot/release which this sampling effort is designed to detect.

7. Section 4.3 calls for Levels IV and V analyses for samples sent to the analytical laboratory. The field screening by OVA and hNu would be categorized as Level II, we assume. The QAPjP is referenced for a complete discussion of data quality objectives, but only the PARCC definitions are stated, and there is no confidence level cited with these.
8. It is not clear from Table 4-3 what percentage of samples will be field duplicates, field blanks, equipment blanks, etc. Section 6.8 and Table 6-3 describe frequencies for field duplicates and trip blanks, but not method blanks or equipment rinses.
9. Section 4.3.2 could add the use of lead as an indicator of fuel contamination, if the more volatile contaminants have dissipated. What about sampling/testing for possible PCBs at those sites where waste oils have been disposed of?
10. Several sites (7, 22, etc.) with known transformer fluid spills will be tested for PCBs--what about those not known to have had such spills--what is the likelihood that such a spill would be missed at other SWMUs?
11. In the QAPjP, Section 7.1 doesn't specify field data validation procedures or frequencies. Lab data should be validated at greater than 10% frequencies if problems are found.
12. In the QAPjP, Section 7.2.1, an unconventional formula is used for percentage accuracy. Vs and the thousand-fold factor are not needed, unless the sample is spiked with a volume of material which significantly alters the volume (and concentration) of the spiked sample. In the typical semivolatile analysis, a 1-ml spike is added to a 1-liter sample, which alters the volume by no more than 0.001 liter, or one-tenth of one percent. In addition, the units don't cancel with Vs in liters.

13. Section 8.1 of the QAPjP should be definite in the number and type and schedule of audits to be conducted, field and lab, system and performance. Attachment 3 lists field audit checklists, but there are no lab audit procedures or checklists presented--how will the labs be audited? Is this left to the Navy's QA program? The section on audits doesn't describe the use of performance audits, such as PE or blind samples.

14. Attachment 2 is the same as Section 5 of the Work Plan.