

DEPARTMENT OF HEALTH SERVICES

TOXIC SUBSTANCES CONTROL DIVISION

REGION 4

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November 16, 1990

J. R. Faunce, CAPT, CEC, USN
Director Facilities Mgmt. Dept.
Marine Corps Air Station
El Toro (Santa Ana), CA 92709-5010

Dear CAPT. Faunce:

DRAFT SITE SAMPLING AND ANALYSIS, AND QUALITY ASSURANCE PROJECT
PLANS, COMPREHENSIVE RI/FS AT THE MARINE CORPS AIR STATION EL TORO.

The Department of Health Services/Toxic Substances Control Program (DHS) has reviewed the above mentioned work plan submitted by Marine Corps Air Station El Toro (MCAS El Toro) for review and comments as required by the Federal Facility Agreement (FFA). The following comments are divided into general and specific:

General Comments

The Department agrees on the objective and rationale of this first phase of a multiphased RI/FS process. DHS agrees on the objective of this sampling effort being to provide an indication of the presence/level of contamination at each site. The Department also agrees on the installation of groundwater monitoring wells on-base.

However, the Department believes that some exploratory work should be done before obtaining soil boring samples at shallow depths. This exploratory work consists of soil-gas surveys of sites considered potential sources of VOCs, which could supply valuable information about hot areas to prioritize investigative efforts. These soil-gas surveys can be focused on areas pinpointed from aerial photographs searches and personnel interviews. Other inexpensive techniques like Ground Penetrating Radar (GPR) and Electromagnetic (EM) surveys could be used to get a preliminary estimate of contaminated areas before mobilizing expensive drill rigs and their crews

DHS believes that soil samples at strategic intervals should be collected and analyzed when groundwater wells are drilled. These soil samples are important because they will determine if the well has been installed on a contamination source area or not.

DHS also believes that soil physical properties analysis (Total Organic Carbon, Surface Area, Particle Size Distribution) should be

J. R. Faunce
page 2
November 16, 1990

performed during this sampling effort in order to obtain data necessary for Exposure Assessment.

It is important that the accuracy of site maps be confirmed in the field with the help of some surveying/mapping. The accuracy of site maps is necessary to support engineering alternatives for remediation

Specific Comments

Figure 4, Major surface water drainage channels.

This figure needs the North arrow.

4.1, Groundwater sampling point, page 107, 5th paragraph.

From the text in this paragraph, it seems evident the disregard of MCAS El Toro towards State MCLs. While EPA's MCL for vinyl chloride is 2 $\mu\text{g}/\text{l}$, State of California's MCL for that contaminant is 0.5 $\mu\text{g}/\text{l}$. Therefore, detection limits must be lower than the regulatory threshold and the most stringent MCLs should be taken into consideration when a remedial action is designed. Additionally, the list of both Federal and State MCLs should be included in some section of the workplan.

4.4 Soil sampling points.

A soil-gas survey of pinpointed sites may reinforce the rationale for collecting soil samples at 2.5 and 5.0 feet to detect volatile organics. Additionally, obtaining soil samples at the time when the wells are being drilled will give a definite concept of how deep the contaminants have migrated.

Background soil samples should be collected at locations outside the base where no releases have possibly occurred. Locations for background soil samples at each individual site could be later determined based on the data obtained from the samples taken during on-base wells installation.

4.5.1 Site 1 - Explosive Ordinance Disposal Range.

It was evident at the last site visit that this is one of the sites where verification of the maps is required. A soil sample should be taken from the drainage way.

Tables 4-1 to 4-21, Sample analysis. Perhaps the word "phase" should be substituted by the word "media". The base may entertain the idea of analyzing soil samples for dioxins at this site, since burning of waste is still occurring at the site.

J. R. Faunce
page 3
November 16, 1990

4.5.2 Site 2 - Magazine Road Landfill.

Since the standard practice was to burn waste to reduce volume before landfilling, dioxins should be analyzed for at this site.

4.5.3 Site 3 - Original Landfill.

A soil-gas survey is recommended at this site. From the Air SWAT results, which include some soil-gas analyses, future sampling locations can be selected.

4.5.5 Site 5 - Perimeter Road Landfill.

A soil-gas survey is also recommended at this site. From the Air SWAT results, which includes some soil-gas analyses, future sampling locations can be selected.

4.5.9 Site 9 - Crash Crew Pit No. 1.

Once the exact location is pinpointed by GPR or EM surveys, sampling of soils for Dioxins is recommended since liquid wastes were burned.

4.5.16 Site 16 - Crash Crew Pit No. 2.

Since hydraulic fluids were burned on this site, shallow soil samples should be analyzed for dioxins.

4.5.17 Site 17 - Communication Station Landfill.

Dioxins are not too mobile and it is rare to find them in groundwater as deep as that found to be beneath the base. Therefore, it is more effective to analyze shallow soil samples for dioxins instead of groundwater.

Section 5.0 Request for analysis.

This section should describe the analytical methods to be used for analyses of volatile and semivolatile organics in soil, TPH and the modified 8015.

Table 5-1, Analyses Requested: Water

This table should specify the EPA Method to be used for each analysis (i.e. 8240, 8100, etc.). It should include also the specific sample identification (i.e. MCASGW0105-01)

Table 5-1, Analyses Requested: Soil

This table should specify the EPA Method to be used for each

J. R. Faunce
page 4
November 16, 1990

analysis (i.e. 8240, 8100, 418, etc.). It should include also the specific sample designation (i.e. GW0105-01) and depth, at each site.

6.4.1.3 Groundwater Sampling.

A procedure to detect and measure immiscible layers in monitoring wells should be included in case it is necessary.

Quality Assurance Project Plan

The following are comments on the Quality Assurance Project Plan:

Table 2-1a, Data Uses and Quality, page A-11.

Since the objective of this sampling effort is to provide an indication of the presence/level of contamination at each site, DHS believes that Level III would be appropriate quality level. For future sampling efforts with the objective of determining the tridimensional extension of contamination, Level IV would be justifiable.

Tables 2-2 and 2-3, Quality Assurance Objectives for Groundwater, Soil and Sediment Analyses, pages A-17 to A19.

The Contract Laboratory Program (CLP) procedures are a good reference. However, the Target Detection Limits, Accuracy % Recovery, and Precision expected for these analyses should be described.

If you have any questions please contact me at (213) 590-4904.

Sincerely,



Manny Alonzo
Associate Hazardous Materials
Specialist
Site Mitigation

Enclosures

see next page for cc list

J. R. Faunce
page 5
November 16, 1990

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