

DEPARTMENT OF HEALTH SERVICES

2151 BERKELEY WAY
BERKELEY, CA 94704

August 17, 1988

Commanding Officer
Naval Station Treasure Island
Building I (Code 70)
San Francisco, CA 94130-5000
ATTN: Mr. Kam Tung

DHS COMMENTS ON HUNTERS POINT GROUP IV SITES SAMPLING PLAN

Dear Mr. Tung:

Enclosed are our comments on the Group IV Sites Sampling Plan for Hunter's Point Annex. We hope that our comments will provide additional assistance toward the assessment of potential contamination at the Group IV sites. Please revise this workplan as necessary and submit the revision by September 16, 1988.

If you have any further questions, please contact William Owen of my staff at (415) 540-2592.

Sincerely,

A handwritten signature in cursive script, appearing to read 'H. Hatayama'.

Howard Hatayama, Chief
Site Mitigation Unit
Region 2
Toxic Substances Control
Division

Enclosure

cc: attached list

HH:wo

D/N 34

MAILING LIST - HUNTERS POINT

Telephone

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COMMENTS ON HUNTERS POINT GROUP IV SAMPLING PLAN

I. GENERAL

- A. It is stated in the Work Plans that "The overall objective of the sampling program is to obtain sufficient data to characterize the soil and hydrogeologic conditions at each site...". However, the Work Plan does not propose any statistically valid sampling strategy. The Work Plan should describe statistically valid sampling strategies to 1) estimate the probability of detecting (or not detecting) contamination, 2) estimate the concentration and quantity of contaminants in specified blocks or volumes of soil, and 3) determine the proper sampling density. The services of a statistician with expertise in environmental sampling may be necessary to complete these tasks.
- B. In order to conform to EPA guidelines, the Work Plan should discuss a conceptual site model, either directly or by reference (e.g. the PHEE or the QAPP). If referenced, a brief summary of the model should be included. The model should discuss sources of known and suspected contamination, types of contamination and the affected media, known and potential routes of migration, and all known and potential receptors. The conceptual site model should serve as the basis for defining RI tasks in the Work Plan. Reference 3 in Section III of these comments discusses the conceptual site model in better detail.
- C. Throughout the Work Plan, all proposed borings are limited to specific depths. However, the accompanying rationale for these borings does not justify such limitations. We recognize the need for the Contractor to estimate drilling depths, in order to establish costs and proper field procedures, but we are concerned that field personnel may follow a rigid interpretation of the Work Plan, with a resulting loss of potentially significant data. We therefore stress that field personnel should use these boring depths as estimates only, and should drill deep enough to achieve the data objectives.

II. SPECIFIC COMMENTS

A. SECTION 2.0: OBJECTIVES

1. The stated objective for this Work Plan is to "obtain sufficient data to characterize soil and hydrogeologic conditions at each site." We are concerned that the Navy views this Work Plan as a final step toward site characterization. It is the Department's position that the RI sites should rely on a phased approach, where subsequent steps of the investigation are based on information gained from the previous phase. Although it may be possible to fully characterize a site in one step, it is clear that most of the sites at Hunters Point will require several phases to complete the characterization.

B. SECTION 4.0: PROCEDURES

1. As described on bullet #4, page 15, the method by which the Navy will collect representative background samples from the investigation of contaminated areas needs clarification.
2. In reference to bullet #6, page 16, physical testing of soil samples should include additional parameters that can influence the fate of contaminants. These include permeability, porosity, bulk density, soil pH, percent clay and silt, and percent organic matter.
3. For bullet #7 on page 16, "Group I" should be changed to "Group IV"; also include the specific section in the QAPP as referenced.
4. Table 4.1 mis-references sections 8, 11 and 12. These should be corrected.
5. To analyze for all the compounds analyzed by the GC/MS method 8240 (VOCs), methods 8010, 8020, and even 8015 will all have to be used. To analyze for all the compounds analyzed by the GC/MS method 8270 (SOCs), various GC methods (eg. 8040-Phenols, 8060-Phthalate Esters, 8080-Organochlorine Pesticides and PCBs, 8090-Nitroaromatics and Cyclic Ketones, 8100/8310-PAHs, 8120-Chlorinated Hydrocarbons) need to be used.

Previous analyses at the Group IV sites found no VOCs, SOCs, gasoline or diesel in the groundwater. If the detection of these contaminants is of

primary concern, then the GC methods listed above should be used.

6. Because of the lower detection limits of GC methods, the detection of a new compound in water may indicate that further soil analysis is necessary. A compound, present in the soil at concentrations below the GC/MS detection limit, may be detectable with a GC method at concentrations exceeding permissible levels.
7. Referring to page 17, The plan states that air quality monitoring will be addressed in a separate plan. However, the draft Air Sampling Plan previously by the Navy specifically excludes air sampling during the RI. This discrepancy needs to be corrected.
8. On page 17, this section states tidal influence will be monitored for 24 hours. The QAPP states 24 hours is the minimum monitoring period. To ensure measurement repeatability, monitoring should be extended to 72 or 96 hours, if necessary.

C. SECTION 5.1.3: EVALUATION OF EXISTING DATA

1. This section does not evaluate existing data, it merely summarizes the results of previous studies. This information does not appear to have been efficiently incorporated into the new work plan, resulting in an apparent overemphasis on chemical analyses. The Navy should ascertain the validity of the previous data and use it in designing this next work phase.

D. SECTIONS 5.1.4, (including Table 5.1A): APPROACH

1. For the shallow borings, soil samples should be collected every 2.5 feet down to a depth of 10 feet. Below 10 feet, samples should be collected every 5 feet.
2. For the trenches, additional samples should be collected a 7.5 feet depth. The method by which the samples will be collected should be specified (i.e., will the samples be composited from several locations at the same depth in the trench, or will several samples from the same depth be submitted separately for analysis?).

3. The method by which groundwater samples will be obtained without the benefit of proper well construction is not explained. Specifically, without a description of the technique, it is impossible to judge if VOC analyses from these samples will yield valid results. Since it is also not covered in the QAPP, this specific technique should be described in the sampling plan.
4. The use of soil borings to sample the full thickness of the fill unit is acceptable. However, monitoring wells constructed from these borings should adhere to the screen length guidelines specified in our comments on the revised QAPP (see also the following comment).
5. To achieve the groundwater data objectives requires some forethought on the part of the Navy regarding well design. These preliminary design details should be included in the sampling plan, and should cover total depths of the wells, well diameters and screen lengths. Particular attention should be paid to Wells 19 and 20. Since nearby wells are screened at the water table, it may be appropriate to screen these wells deeper.

III. SUGGESTED REFERENCES

- A. California Site Mitigation Decision Tree Manual, California Dept. Health Services, June 1986.
- B. A Compendium of Superfund Field Operations Methods, EPA/540/P-87/001a, September, 1987.
- C. Data Quality Objectives for Remedial Response Activities, EPA/540/G-87/003, March 1987.
- D. RCRA Facility Investigation Guidance (Draft), Office of Solid Waste, U.S. EPA, October, 1986.
- E. Superfund Public Health Evaluation Manual (SPHEM), EPA/540/1-861060, October, 1986.