

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 III SITES SAMPLING PLAN

Dear Mr. Tung:

Enclosed are our comments on the draft Group III Sites Sampling Plan for Hunter's Point Annex. We hope that our comments will provide assistance toward assessing the potential contamination of the Group III sites.

Please revise this sampling plan per our comments 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 black ink, appearing to read "Howard Hatayama".

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

Enclosure

cc: attached list

HH:wo

D/N 35

MAILING LIST - HUNTERS POINT

Telephone

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COMMENTS ON HUNTERS POINT GROUP III 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. For the Group III sites in particular, the sampling plan may be attempting to accomplish more than current information warrants. 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. For example, on Plates 4 and 5, the number of borings and the proposed analytical scheme may be excessive. A phased approach to sampling may be more appropriate and reduce sampling costs. It may be prudent to scale back the number of borings, and decide if additional investigations are necessary based on the first round results.

### 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 an explanation.
2. In reference to bullet #6 on page 16, additional soil properties that are important to assessing the fate of contaminants should be analyzed as necessary. These tests should include permeability, porosity, bulk density, percent clay and silt, and percent organic matter.
3. For bullet #7 on page 16, "Group I" should be changed to "Group III"; also include the specific section in the QAPP as referenced.
4. Table 4.1 mis-references sections 8, 10, 11 and 12, and Tables 2 and 3. These should be corrected. In addition, each reference in this table (especially the Analytical and Drilling and Well Installation Procedures) should be double-checked to ensure that the references are adequately explained in the QAPP.

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. Because these GC methods have lower detection limits than the GC/MS method, it is possible that some compounds will be detected in later sampling rounds that were not detected in the initial round.
6. 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. Because these GC methods have lower detection limits than the GC/MS method, it is possible that some compounds will be detected in later sampling rounds that were not detected in the initial round.
7. 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.
8. 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.
9. 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. SECTIONS 5.1.3, 5.2.3: EVALUATION OF EXISTING DATA

1. These sections do not evaluate existing data, they merely summarize the results of previous studies. The Navy should apply QA/QC methods to this previous data and attempt to ascertain its validity.

## D. SECTIONS 5.1.4, 5.2.4, (includes tables): APPROACH

1. Referring to Page 21, paragraph 4, Any modification/addition to the sampling approach should be submitted in writing to DHS along with an explanation of the rationale for the change.
2. No reason has been given as to why soil gas surveys have not been included in the sampling plan. Soil gas analysis is a proven cost-effective reconnaissance tool, and should be considered for Hunters Point. If not, then specific reasons for excluding soil gas should be given.
3. The first paragraph on page 26 should clarify that TPH and O&G will be analyzed for in all samples above the water table, regardless of depth (water table may be below 10 feet).
4. 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.
5. 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.
6. A depression is indicated on Plate 4 just south of proposed boring #19. Since this area may collect runoff, shallow soil sampling in this area for metals and PCB's should be performed.
7. Referring to page 25, paragraph 2 and Table 5.1A, Soil pH should be included in the analyses, since it would have a considerable influence on solubility and migration potential of metals.

8. No rationale has been given for not sampling Triple A site 3 south of Spear Avenue. Although available records suggest a lesser degree of contamination than north of Spear Avenue, waste oils, metals and possibly additional chemicals were illegally disposed of in this area. Therefore, the sampling plan should also include this area. At a minimum, shallow soil sampling should be proposed for this area.
9. Page 23, Paragraph 3: Ground stains have been observed and it is possible that a storm sewer was used for disposal purposes, yet this plan does not address the specific investigation of either of these areas. Please explain this discrepancy. Identification of wastes investigated by the District Attorney could help characterize possible contaminants disposed of in the Scrap Yard by Triple A, and narrow down the analytical requirements for samples.
10. Referring to Plate 5, The area between boreholes TH and TE lacks adequate coverage to delineate contamination in areas of positive PCB results. Two shallow borings should be moved to this area, but it is not necessary to increase the number of borings to achieve this.

### III. SUGGESTED REFERENCES

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