



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

N00217.003668
HUNTERS POINT
SSIC NO. 5090.3

June 12, 1997

Bill McAvoy [1832.1]
Department of the Navy
Engineering Field Activity, West
Naval Facilities Engineering Command
900 Commodore Drive
San Bruno, CA 94066-5006

RE: EPA Comments on the Data Gaps Sampling and Analysis Work
Plan for additions to the Scope of Work at Parcel B, Hunters
Point Shipyard

Dear Mr. McAvoy:

EPA has reviewed the above referenced document and has attached a number of specific comments to this letter. Briefly, it appears that the plan does not follow EPA guidance on developing sampling and analysis plans. In case you do not have a copy of this guidance, I am providing one as an enclosure along with copies of several other EPA guidance documents related to sampling and QA/QC for your files. Regarding the references listed on page 26 of the draft document, please clarify the reference to the 1996 Basewide Quality Assurance Project Plan. Based upon discussions with Jim Sickles of your office, it appears that the title of this document is: Installation Specific Quality Assurance Project Plan Elements, Draft Final, May 24, 1996.

EPA would also request that the Navy collect soil gas measurements at IR-25 and that this effort be included in the sampling and analysis work plan. The lack of soil gas information at IR-25 is a data gap for Parcel B. I know that the Navy is moving IR-25 to Parcel C but EPA wants some assurance that the Navy will obtain soil gas measurements at IR-25 as well as at IR-36 on Parcel D and IR-28 on Parcel C.

Finally, based on discussions at a project meeting held on June 10, 1997, monitoring wells for the Parcel B groundwater shall be completed at a location deemed by modeling to be protective of the San Francisco Bay. Groundwater contamination exceeding the HGAL or NAWQC, whichever is higher, shall not be exceeded at the high tide line of the tidally influenced zone. If additional data must be gathered to support groundwater modeling or to determine the high tide line of the tidally influenced zone, this data gathering effort should be added to the sampling and analysis work plan.

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After you have reviewed these comments, please call me at (415) 744-2409 to discuss the revision of the sampling and analysis work plan in greater detail.

Sincerely,



Claire Trombadore
Remedial Project Manager

cc: Tom Shoff, PRC
Richard Powell, EFAWEST
Michael McClelland, EFAWEST, Code 62.3
Chien Kao, Cal/EPA
Richard Hiatt, RWQCB
Karla Brasaemle, Weston

**COMMENTS ON THE
DATA GAPS SAMPLING AND ANALYSIS WORK PLAN FOR
ADDITIONS TO THE SCOPE OF WORK AT PARCEL B
HUNTERS POINT SHIPYARD**

GENERAL COMMENTS

1. This SAP does not provide enough information for a sampling team that is not completely familiar with the site to conduct the specified field work. Detailed information on sample labeling and packing, QA/QC sample collection, field instruments and screening methods, and decontamination procedures should be included. All procedures that differ from SOPs should be discussed.
2. This work plan does not address the IR-25 data gap concerning the magnitude and extent of vinyl chloride gas in soil. Please consider adding the IR-25 soil gas investigation to this data gap work plan. If the investigation will be done in conjunction with other sites, please indicate when this investigation will occur.

SPECIFIC COMMENTS

1. Section 2.1.1, p. 4. Please explain how the thickness of Artificial fill can range from less than 1 foot to 80 feet (second sentence) when the depth to Franciscan Complex Bedrock varies from less than 1 foot to greater than 75 feet (last sentence).
2. Section 2.2, p. 8, paragraph 3. The fifth data gap group, contaminant exposure pathways and receptors, is not discussed as indicated in the introduction. Please discuss this data gap.
3. Section 2.2.4. This section introduces three potential parcel wide data gaps on p. 9 but includes a discussion of only two of the parcel wide data gaps on p. 10. Include a discussion of all three parcel wide data gaps.

Item (1) on p. 9 should list IR-06 since this site is discussed in the first bullet on p. 10.
4. Section 2.2.4, p. 10, first bullet. Please add one sentence to explain why potential DNAPLs at IR-10 and IR-24 are not a concern.
5. Section 2.2.4, p. 10, second bullet. The section indicates that an evaluation of data at IR-10, IR-24, and IR-25 indicate that the effects of the utilities is localized at IR-06. The fact that data from IR-06 was also evaluated should also be

included in the third sentence.

The text dates that associated bedding material will be removed if contaminated during the removal of the fuel line. Please discuss whether bedding material in the steam line trenches will also be removed if it is found to be contaminated.

6. **Section 3.2, p. 14, paragraph 2.** As discussed in several recent BCT meetings, excavation is not recommended for IR-25 because vinyl chloride and other VOCs would be released to the atmosphere. Please revise the last sentence. Also, removal of the DNAPL, if possible, will only eliminate the source of contamination and will not remediate groundwater with dissolved product that may exist downgradient of the site. An investigation of the B-aquifer should be considered at this site.
7. **Section 3.2, p. 14, bullets.** According to Figures 3 and 6, proposed wells IR18MW100B and IR18MW101B will be drilled where the Bay Mud is suspected to be absent. If the Bay Mud aquitard is absent, it is not likely that there will be a vertical hydraulic gradient between the A and B aquifers. Please explain in greater detail why these locations were chosen and discuss whether the well locations will be adjusted if the Bay Mud aquitard is absent.
8. **Section 3.2, p. 15, second bullet.** Table 4 does not include soil sample analytical requirements; this information is presented in Table 3.
9. **Section 3.2, p. 15, third bullet.** Please specify the number and type of QA/QC samples, including duplicates, equipment blanks, field blanks, MS/MSD samples, etc., that will be analyzed. This information could be presented in a table.
10. **Section 3.3, p. 15.** Figures 7 through 9 only show the concentrations of PAHs; the concentrations of TPH-d and TPH-mo are not presented on these figures as stated in the text. Please revise either the figures or the text to be consistent.
11. **Section 3.3, p. 16, paragraph 2.** Figure 10 does not show the locations of the proposed off-site wells, please reference Figure 12.
12. **Section 3.4, p. 16, third paragraph.** Figure 11 does not show the information indicated in this section. Please include and reference the correct figure. (Figure 13 is listed in the Table of Contents but is not included in the review copy.)

This section implies that a comparison of wet season groundwater elevation data and storm drain elevations was used for choosing sample locations. If samples will be collected

during the dry season provisions should be included for the possibility of dry sample locations.

13. **Section 4.1.3, p. 19.** This section indicates that soil cuttings will be lithologically logged. However, since soil samples will be collected with a split spoon (see second bullet, Section 4.1.4) when possible, undisturbed soil samples should also be logged.
14. **Section 4.1.4, p. 20.** Split spoon sampling with an air rotary drill rig is generally cumbersome. Please discuss any special procedures that will be necessary to accomplish the split spoon sampling.
15. **Section 4.2.1, p. 20.** This section indicates that a dual-tube percussion hammer method will be used. On p. 19 the method is referred to as an air rotary method (Section 4.1.2). Please be consistent in the use of technical terms.
16. **Section 4.2.1, p. 21, paragraph 3.** Please specify which conditions will warrant the use of well materials other than PVC.

B-aquifer well screens should terminate at approximately one to two feet below the base of the Bay Mud so that filter pack does not extend into the Bay Mud unit. This especially important in areas where the Bay Mud is thin. The wells should be surged before the bentonite seal is added to ensure that the filter pack has completely settled.

SOP 020 contradicts some of the construction details in this section. Please discuss exceptions to the SOP (Appendix A) to eliminate possible confusion by field personnel.

17. **Section 4.2.1, p. 21, paragraph 4.** Placing bentonite pellets over the filter pack below the water table with a tremie pipe is difficult because the pellets when wetted tend to clog the tremie pipe. An alternative method should be considered.
18. **Section 4.2.1, p. 21, paragraph 5.** Indicate what conditions will warrant the use of a cement/sand grout mixture since cement/bentonite is generally standard.
19. **Section 4.2.1, p. 22, paragraph 3.** The horizontal position of the wells should also be surveyed.
20. **Section 4.3, p. 23, fourth bullet.** Indicate how often the indicator parameters will be measured.
21. **Section 4.4.** Please indicate whether the CPT locations will be surveyed.
22. **Section 4.5, p. 24.** Indicate where Hydropunch samples will be

collected and what parameters will be analyzed. Based on a review of the tables and figures it appears that Hydropunch samples will be collected at the CPT locations. Please explain how analysis all of the parameters listed in Table 3 for the CPT locations can be completed if only 500 ml of groundwater will be collected per sample (it appears from Table 4 that more than 7 liters are required to complete all of the analyses).

23. **Section 4.6, p. 24.** Due to the health and safety risks involved, a confined space entry should only be considered as a last resort.
24. **Section 4.6, p. 25, second bullet.** Since this sentence is not a sample method it should not be bulleted.
25. **Section 4.7, p. 25.** The description of decontamination procedures is vague. Provide detailed instructions for decontaminating field equipment including, but not limited to, storm drain sampling equipment and the bladder pump. Please explain procedures to be used to decontaminate sampling equipment that has been exposed to petroleum products in soil or groundwater, since detergents are not always effective in cleaning heavily contaminated equipment. Also, please explain why nitric acid is not used to decontaminate equipment used for sampling metals.