



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105
SFD 8-3

March 18, 2004

Thomas Macchiarella
BRAC Operations, Code 06CA.TM
Department of the Navy, Southwest Division
Naval Facilities Engineering Command
1230 Columbia Street, Suite 1100
San Diego, CA 92101

RE: **Field Sampling Plan and Quality Assurance Project Plan Addendum 2, IR Site 27,
Dock Zone, Alameda Point**

Dear Mr. Macchiarella:

EPA has reviewed the above referenced document, prepared by Bechtel Environmental Inc on behalf of the Navy and received by EPA on March 1, 2004. Our major concern with the proposed sampling is that it will not answer the question of whether a continuing source exists beneath Building 168. We suggest the sampling plan be revised to address this problem.

Please contact me at (415) 972-3029 or at cook.anna-marie@epa.gov if you have any questions regarding the comments.

Sincerely,

A handwritten signature in cursive script that reads "Anna-Marie Cook".

Anna-Marie Cook
Remedial Project Manager

cc list: Jennifer Stewart, SWDiv
Marcia Liao, DTSC
Judy Huang, RWQCB
Elizabeth Johnson, City of Alameda
Lea Loizos, Arc Ecology
Jean Sweeney, RAB Co-Chair
Karla Brasaemle, TechLaw Inc

**Field Sampling Plan and Quality Assurance Project Plan Addendum 2, IR Site 27,
Dock Zone, Alameda Point**

GENERAL COMMENTS

1. There is a data gap beneath Building 168. Groundwater samples have not been collected from beneath the building and the vinyl chloride concentration at 27B029 suggests that there is or that there was a current or former upgradient source area beneath Building 168. Since samples have not been collected from beneath the building and are not proposed to be collected from the area beneath the building it will not be possible to determine if there is an area of contamination beneath the building that could provide an ongoing source for groundwater contamination. The apparent maximum in the vicinity of 27B22 does not preclude the potential for an additional source beneath the building. In order to adequately address this data gap, samples should be collected beneath Building 168. Also, please discuss the historic uses of Building 168 and the area just west of this building and whether there are sumps, drains, and/or drain lines beneath the building.

2. The proposed work appears to have been designed with the underlying assumption that the source of contamination is west of Building 168. For example, in Section 1.3, the text states, "Phase IV activities are also intended to characterize a specific vadose-zone soil source, if present, at the apparent upgradient extent of VOCs at or near the western margin of Building 168," which implies that the source area is believed to be west or downgradient of the building. Because the potential for a source beneath Building 168 exists, and because samples are not proposed beneath the building, it may not be possible to definitively determine the potential source of VOCs in groundwater (Data Quality Objectives [DQOs] Step 1: Problems), to adequately characterize either "site releases of COPCs" or the risk to human health (DQO Step 2: Decisions), to locate a continuing source (Step 5: Decision Rules), or to minimize possible decision errors (Step 6: Limits on Decision Errors). Please reconsider the site conceptual model and include the possibility that there is a source beneath Building 168 and then revise the sampling plan so that the DQOs will be met.

SPECIFIC COMMENTS

1. **Figure 2-13, Selected VOCs in Groundwater Reported During Phase I, II, and III: Sum of Five VOCs Contoured, Figure 2-14, Selected VOCs in Groundwater Reported During Phase I, II, and III: Vinyl Chloride Contoured, and Section 2.4.1, Organic Contaminants (Revised), Page A2-2:** The contours suggest that the source area or an additional source area may be beneath Building 168, but this possibility is not discussed in the text. Cross-sections were not provided, so it is not possible to evaluate the slope of lithologic layers to evaluate the direction that dense non-aqueous liquids (DNAPL), if present, might have migrated from a spill or release. As a result, the site conceptual model is incomplete and it is difficult to evaluate whether the work that has been completed and that is proposed is sufficient to characterize the site. Further, the fact

that the detected concentration of vinyl chloride was higher in 27B029 than in the adjacent monitoring well suggests that contamination may be moving in discrete layers. Cross-sections would facilitate this type of evaluation. Please provide cross-sections that show the dip of layers in the vicinity of the groundwater hot spots and, if necessary, propose additional samples to complete the characterization of this site.

2. **Section 4.3, Soil Sampling (Revised), Page A4-9:** The text indicates that selected samples from “the 4-to-6-foot-bgs interval will also be analyzed for several soil properties (e.g., air permeability, density and effective porosity) to assist in air modeling and in completing the baseline human health risk assessment,” but the locations from which these samples will be collected have not been specified. Please specify the locations for soil property sample analysis.

3. **Table 5-2 (Revised) Analytical Methods, Containers, Preservation, and Holding Times for Proposed Soil and Soil Gas Samples:** Table 5-2 indicates that VOC samples in EnCore Samplers will be frozen at the laboratory and that “the holding time is 48 hours after thawing,” but the EPA method specifies that EnCore Samplers must be frozen within 48 hours of sample collection. Analysis still must be done within 14 days. See http://www.epa.gov/epaoswer/hazwaste/test/faqs_org.htm. It is unclear why sample analysis cannot be done within 48 hours of sample collection and why freezing is necessary. If samples that contain water are frozen, it is possible for the samplers to split or otherwise to lose their integrity. Please explain why samples will be frozen, explain procedures that will be followed by the laboratory to ensure sample integrity and to report problems if they occur during freezing. Also, please resolve the holding time discrepancy.