



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

January 29, 1996

Mr. Dave Song  
Engineering Field Activity, West  
900 Commodore Drive, Code 1832.3  
San Bruno, CA 94066

RE: EPA Review and Comment on the Draft Basewide Quality Assurance Project Plan, Engineering Field Activity, West, Naval Facilities Engineering Command, Hunters Point Annex (HPA), San Francisco, California

Dear Mr Song:

EPA has completed its review of the above-referenced quality assurance project plan (QAPP), prepared by PRC Environmental Management, Inc. and dated December 11, 1995. The review was based on the guidance provided in the following documents: "EPA Requirements for Quality Assurance Project Plans for Environmental Data Operations" (EPA QA/R-5, August 1994); "Guidance for the Data Quality Objectives Process" (EPA QA/G-4, September 1994); and "U.S. EPA Region 9 Guidance for Preparing Quality Assurance Project Plans for Superfund Remediation Projects" (9QA-03-89, September 1989).

The QAPP adequately addresses most of the EPA required plan elements, although several additions or clarifications are necessary. The following comments should be addressed before the QAPP can be recommended for approval by EPA Region 9's Quality Assurance Management Section (QAMS).

Comments:

1. [Section 2.0, Project Description; Section 2.2, HPA Background] The text in Section 2.2 of the QAPP states that a list of the contaminants detected at each HPA site is presented in Table 3-2 of the Base Realignment and Closure Cleanup Plan (BCP) (PRC 1995). However, the QAPP contains no specific information concerning the expected contaminants of concern and matrices involved. Based on the information presented in the QAPP, it is impossible to determine the focus of the planned remedial investigation. It is recommended that additional information be provided so that the proposed sampling and analysis program can be more easily evaluated.

2. [Section 3.0, Project Organization, Responsibilities, and Training] The QAPP should (1) identify a project quality assurance (QA) officer who is a government (i.e., Navy) employee; and (2) include a signature block for the appropriate Regional approving official on the signature page.
3. [Section 10.3.2, Data Validation, Laboratory Data] The discussion of data validation in Section 10.3.2 of the QAPP states that 10% of data generated will be randomly selected for full validation. Although this approach is considered to be generally acceptable for on-going projects, it is recommended that the first data package for each method be reviewed, following full data validation procedures, at the commencement of each new field activity. Additionally, a provision should be included in Section 10.3.2 for reviewing a larger percentage of data (i.e., greater than 10%) should serious analytical problems be identified during data validation.
- 4A. [Section 11.1.2, Performance Evaluation Samples; Section 11.2, System Audits; Section 11.3, Field Audits] The QAPP should include provisions for providing copies of audit reports and performance evaluation (PE) sample results to Region 9 EPA.
- 4B. The discussion of PE samples in Section 11.1.2 of the QAPP should be expanded to specify the frequency at which PE sample analyses will be performed; acceptance criteria for PE samples analyses; and oversight/corrective action measures for noncompliant PE samples.
- 4C. The text in Section 11.2 states that the first system audit will be conducted shortly after a system becomes operational. This statement should be clarified. If multiple systems are planned, the QAPP should identify each system and indicate if audits will be performed as each system becomes operational. Also, it is recommended that follow up system audits be conducted on an annual basis, at a minimum.
5. [General] The laboratories which will perform polychlorinated dibenzo-p-dioxin (PCDD)/polychlorinated dibenzofuran (PCDF) and asbestos analyses should be identified in the QAPP. In addition, the quality assurance manual(s) and SOPs for laboratories performing these analyses should be provided. The Anametrix Laboratories procedures provided in Appendices B (Anametrix Laboratories Quality Assurance Project Plan) and C (Anametrix Laboratories Standard Operating Procedures) do not cover PCDD/PCDF or asbestos analyses.

#### **Other Concerns**

1. [Section 5.1.1, Remote Surveying Procedures, Surface Geophysical Investigation Procedures] The text in Section 5.1.1 states that seismic surveys will be conducted along

north-south or east-west profiles, if possible. Seismic surveys, like any other remote survey, should be conducted along profiles that potentially will yield the most definitive interpretation of subsurface features based on knowledge of site history and site structures and features. The QAPP should provide a rationale for the selection of profile directions.

2. [Section 5.2.3, Well Installation] Section 5.2.3 states that slot size will be determined based on existing data from other wells and evaluation of the interval to be screened in each well. Section 5.2 also states that a sand pack of water-washed sand sized to be compatible with aquifer materials and screen size will be placed adjacent to the screened interval. The QAPP should describe how slot size and filter pack size will be determined (e.g., through sieve analyses or other physical measurements on samples or the formation). This information may be provided by reference to other planning documents.
3. [Section 5.2.4, Well Development] Section 5.2.4 states that each well is developed until the discharged water is visibly clear and free of sediment. It is unclear how this will be determined. It is recommended that the QAPP specify acceptance criteria for well development in terms of field parameters measurements (e.g., specific conductivity, pH, turbidity).
- 4A. [Section 5.3.3, Water Sampling Procedures] A justification for filtering groundwater samples targeted for metals analyses should be provided in Section 5.3.3 of the QAPP. In general, the filtering of groundwater samples prior to analysis should be performed only after all other techniques for reducing turbidity (e.g., proper well development, use of low flow pumps) have been tested and proven to be ineffective.
- 4B. Water level measurements should be performed repeatedly to ensure accurate results. The text in Section 5.3.3 should be modified to specify that this procedure be performed during sampling activities.
5. [Section 5.4, Decontamination and Disposal Procedures] It is recommended that the equipment decontamination procedure described in Section 5.4 of the QAPP be amended to include a rinse with 0.1N nitric acid when cross contamination from metals is a concern, and a pesticide grade solvent rinse when contamination from semivolatile and non-volatile organic compounds is a concern.
- 6A. [Section 9.1, Field Quality Control Samples; Section 9.1.1, Field Duplicate Samples] It is recommended that field duplicate samples be collected for soil in addition to water. The text in Section 9.1.1 of the QAPP states that only field

duplicate samples for aqueous matrices will be collected. The procedure which will be followed for collecting field duplicate soil samples should be described. If the collection and analysis of such samples is not appropriate for HPA activities, a rationale should be provided.

- 6B. It is recommended that background (or "reference") samples, in addition to the other QC samples specified in Section 9.1, be collected and analyzed for the complete set of parameters for each matrix. If the collection and analysis of background samples is not appropriate for HPA activities, a rationale should be provided in the QAPP.
7. [Section 10.2.2, Documentation and Deliverables, Laboratory Data] The QAPP should include a provision for obtaining gas chromatography/mass spectrometry (GC/MS) data on magnetic tape from the laboratory to maintain in the project file. This will ensure that, in the event that data quality problems are identified, the tapes will be available for review.
- 8A. [Appendix A, Subtask 1.1.2, Method 8260A Analysis for Volatile Organic Compounds] The compounds that will be used for internal standards, surrogates, matrix spikes/matrix spike duplicates, and blank spikes for SW-846 Method 8260A analyses should be specified in the text for Subtask 1.1.2. Additionally, QC limits should be specified on a compound specific basis.
- 8B. Subtask 1.1.2 states "[t]he QC limits for surrogate recovery shall meet the least stringent QC limits for the associated CLP surrogates." However, this is not consistent with SW-846 Method 8260A. The QC limits specified in the method are performance based since the individual surrogates respond differently. It is recommended that the QC limits specified in SW-846 Method 8260A for the individual analytes be applied to be consistent with the referenced method.

#### Comments

1. [Section 5.2.2, Drilling and Well Installation Procedures, Drilling Techniques] It should be noted that ASTM Standard D 2488-90, for soil classification, has replaced ASTM Standard D 2488-84, which is referenced in Section 5.2.2 of the QAPP.
2. [Section 7.0, Analytical Methods and Reporting Limits; Appendix A, PRC Statement of Work for Laboratory Analyses] It should be noted that many of the EPA SW-846 methods have been revised, and therefore, the numbers referenced in the QAPP are incorrect. Methods 3005, 3010, 3020, 3550, 5030, 8020, and 9071 have been replaced with 3005A, 3010A, 3020A, etc. Method 3510, 3520, 8010, 8150, and 9040 have been replaced with 3510B, 3520B, 8010B, etc. Method 9045 has been replaced with 9045C.

3. [Appendix A, Table A-I-1, Required Analytical Methods and Quantitation/Detection Limits] A number of method references in Table A-I-1 are not consistent with the text in Appendix A. The text and tables should be reviewed and any discrepancies identified should be resolved.
4. [Appendix C, Anametrix Laboratories Standard Operating Procedures] The references to the Contract Laboratory Program (CLP) Statement of Work (SOW) for organic analyses should be updated from OLM01 (Revisions 1 through 9) to OLM03.1.

Questions or comments regarding this review should be referred to me at (415) 744-2409 or to Lisa Hanusiak, EPA QAMS, at (415) 744-1528.

Sincerely,



Claire Trombadore  
Remedial Project Manager

cc: Lisa Hanusiak, EPA QAMS  
Cyrus Shabahari, DTSC  
Mike McClelland, EFAWEST