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HUNTERS POINT
SSIC NO. 5090.3

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

June 19, 2000

Mr. Richard Mach
Department of the Navy
Naval Facilities Engineering Command
Southwest Division
BRAC Office
1220 Pacific Highway
San Diego, CA 92132-5190

RE: EPA Quality Assurance (QA) Office Review and Comment the Draft Field Sampling Plan (FSP) and Quality Assurance Project Plan (QAAP), for Phase I Groundwater Data Gaps, Parcels C and D, Hunters Point Shipyard

Dear Mr. Mach:

The EPA Region 9 QA Office has completed its review of the above referenced draft FSP and draft QAAP for the Parcel C and D Phase I Groundwater Data Gaps sampling effort. QA Office comments are presented in an attachment to this letter. It should be noted that the documents cannot be approved by the EPA Region 9 Quality Assurance Program until the concerns presented in the attachment to this letter are adequately addressed.

Questions or comments concerning this review should be directed to Joe Eidelberg of the EPA Region 9 QA Office at (415) 744-1527.

Please note that I will be providing additional comments regarding the portions of the documents pertaining Parcel D under separate cover by COB June 20, 2000.

Sincerely,

Claire Trombadore
Remedial Project Manager

cc: Joe Eidelberg, EPA
Adam Klein, Tech Law
Chein Kao, DTSC
Brad Job, RWQCB
Jason Brodersen, TtEMI
Amy Brownell, City of SF
John Chester, City of SF

EPA REGION 9 QUALITY ASSURANCE OFFICE REVIEW AND COMMENT DRAFT FIELD SAMPLING PLAN AND QUALITY ASSURANCE PROJECT PLAN FOR PHASE I GROUNDWATER DATA GAPS PARCELS C AND D, HUNTERS POINT SHIPYARD

INTRODUCTION

A draft quality assurance project plan (QAPP) and field sampling plan (FSP) for the Phase I groundwater data gaps investigation at Hunters Point shipyard, prepared for the Department of the Navy by Tetra Tech EM, Inc. (TtEMI) and dated June 1, 2000, were reviewed. The review was based on guidance provided in the following documents: "EPA Requirements for Quality Assurance Project Plans" (EPA QA/R-5, November 1999); "Guidance for the Data Quality Objectives Process" (EPA QA/G-4, September 1994); "Preparation of a U.S. EPA Region 9 Field Sampling Plan for Private and State-Lead Superfund Projects" (9QA-06-93, August 1993); "Use of Low-Flow Methods for Ground Water Purging and Sampling: An Overview" (December 1995); and EPA Region 9 Memoranda "Review and Amendment of Quality Assurance Project Plans for Federal Facility Cleanup Sites" (September 30, 1996); and "Policy Statement on Designation and Qualifications of a Quality Assurance Officer for Environmental Data Operations at Federal Facilities in United States Environmental Protection Agency (EPA) Region 9" (June 22, 1998).

The QAPP and FSP address most of the Agency and Region 9 required elements. However, some concerns were noted during the review and are discussed in the body of the report.

The subject QAPP cannot be approved the Quality Assurance Program until the following concerns have been adequately addressed.

Concerns

1. [General] The QAPP and FSP provide limited background information. The introduction to the QAPP states that a site background with results of previous investigations is presented in this QAPP, and references other documents. However, neither the QAPP or FSP provide the analytical results from past investigations. It is recommended that the significant analytical results of past studies be summarized in the documents.

2. [QAPP: Section A1.4, Data Quality Objectives; Table A-2, Identification of the Seven Steps of the Data Quality Objectives Process] Section A1.4.6 and Table A-2 of the QAPP state that judgmental sampling is being utilized, therefore, a statistical model is not appropriate. However, the plan should discuss how the chosen number of samples was deemed sufficient for project specific objectives.

   Note, for consistency the information provided in Section A1.4.3 (page A-11) regarding 54 A-aquifer and 14 bedrock water-bearing zone wells should be added to Step 3 of Table A-2 (page A-8).

3A. [QAPP: Section A2, Project and Task Organization; Figure A-2, Organization Flowchart] Section A2.1 identifies Mr. Richard Mach as Base Realignment and Closure (BRAC) Environmental Coordinator and Ms. Susan Gallagher as Sample Tracking Coordinator. However, these personnel are not depicted on the organization chart. These should be included in the chart.

3B. Figure A-2 indicates that Project On-Site QA Officer and Health and Safety Officer are yet to be determined. The final QAPP should identify these personnel.

3C. Section A2.2 (pages A-21) states that the Installation Coordinator is responsible for coordinating with subcontractors. Section A2.2 (page A-27) also indicates that TtEMI Project Chemist will be responsible for setting up the contractor laboratories. However, the subcontractors are not identified. It is recommended that the QAPP identify the subcontractors and depict them on the organization chart.

Note, Section A2.2 should read Figure A-2, and not A-4.

4. [QAPP: Section A4.2, Project Measurements; Appendix 2 - Table 2-2, Comparison of Detection Limits and Analyte Screening Criteria] Section A4.2 of the QAPP states that low-level analytical methods will be used for volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), and polychlorinated biphenyls (PCBs) analyses as those methods meet the screening criteria identified in Table 2-2 of the QAPP. However, Table 2-2 indicates that the laboratory reporting limit (LRL) for 1,1,2,2-Tetrachloroethane is higher, 2 microgram/liter (μg/L), than the corresponding maximum contaminant level (MCL) of 1 μg/L. Similarly, the LRL for thallium is higher (2.7 μg/L) than the corresponding MCL of 2 μg/L. In fact, Table 2-2 indicates that the LRL for these analytes meets criterion. This issue should be addressed.

Note, Table 2-2 indicates that the LRL for many analytes are equal to the corresponding MCLs. It is suggested, if possible, the reporting limits should be lower than the MCL to ensure confidence in the data at the decision making level (MCL).

5. [QAPP: Sections A5.5.1, Precision; Appendix 3 - Precision and Accuracy Goals] Section A5.5.1 of the QAPP states that the control limits for precision of field duplicates and laboratory matrix spikes are set at 25 relative percent difference (RPD) for water samples. However, Appendix A-3 of the QAPP provides different RPD criteria specific to each analyte. This inconsistency between text and tables should be resolved.

6. [QAPP: Section A6.3, Data Package Format - Data Storage and Disposal] Section A6.3 of the QAPP states that the raw data will be retained by the laboratory on magnetic tapes. Region 9 requires that gas chromatography/mass spectrometry (GC/MS) data on magnetic tapes should be provided to the Navy along with other laboratory data deliverables. In turn, the magnetic tapes can be made available to Region 9 upon request. The Navy has previously commented that they do not have space to archive data tapes. Region 9 is willing to archive the tapes.

7A. [QAPP: Section C1, Assessments and Response Actions] Section C1 indicates that three types of audits may be conducted, but does not specify what audits are planned for the project. This information should be provided.

7B. Section C1.1.1 states that TtEMI conducts laboratory audits as a condition of contract award. It is recommended that copies of all audit reports be submitted to Region 9.

7C. Section C1 of the QAPP does not include a provision for analyzing double blind performance evaluation (PE) samples. Region 9 requires that double blind PE samples be analyzed for laboratory evaluation. The QAPP should specify the frequency and acceptance criteria for PE samples. In addition, the results of PE samples should be made available to Region 9.

8. [QAPP: Appendix 1 - Chain of Custody Record] The chain of custody form should identify the environmental sample to be used for QC purposes to ensure that the laboratory will not mistakenly spike a blank.

9. [FSP: Section 4.4, Well Installation] Section 4.4 of the FSP provides general well specifications for the project. In addition Region 9 requires that a table identifying the well specifications (well depths, casing diameters, screen intervals) for all new wells be included in the FSP.

10A. [FSP: Table 4-4, Data Collection Requirements] Table 4-4 of the FSP provides limited information for the proposed quality control (QC) for the project. The field duplicate locations are not identified in the table or in the associated text. It is recommended that the table identify the locations where the duplicate samples will be collected.

10B. Table 4-4 indicates that two equipment rinsates per week per field crew will be collected. Region 9 requires at least one equipment rinsate blank per day per parameter be collected.

In addition, Table 4-4 does not indicate that a double volume of ground water should be collected for laboratory QC purposes.

11. [FSP: Figures 4-1 through 4-4, Site Maps] The directions of surface and groundwater flow have not been depicted on any of the site maps provided. It is recommended this be depicted in the figures.

Additional Comments

1. [General] Both the QAPP and FSP are dated June 1, 2000, yet all approval signatures are dated in late May.

2. [QAPP: Section A3, Site Background and Problem Definition] Section A3 (page A-32) should read Table 4-4 of the FSP, and not 4-1.

3. [QAPP: Section B5, Analytical Methods] Section B5 of the QAPP (page B-8) states that

in-situ measurements of ground parameters is detailed in Section 4.3.6 of the FSP. Section 4.3.6 of the FSP could not be located.

4. [QAPP: Section B6.1.4, Equipment Rinsate Blanks] Section B6.1.4 states that the frequency of collection of equipment rinsate blank samples is presented in Table B-1. However, this table could not be located.

5. [FSP: Section 7.0, Health and Safety] Section 7.0 cites a basewide health and safety plan (HSP); however, the HSP is not included with or attached to the FSP. The HSP must accompany the FSP in the field.