



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

July 7, 2005

Mr. Jerry Dunaway
Southwest Division,
Naval Facilities Engineering Command
1220 Pacific Highway
San Diego, CA 92101-8517

RE: Draft Work Plan Remedial Investigation Phase II For Southern Offshore Sites, Former Mare Island Naval Shipyard, Vallejo, California, May 10, 2005

Dear Mr. Dunaway:

EPA has reviewed your draft Work Plan for the Phase II Remedial Investigation for the Southern Offshore Sites. We offer the following comments.

GENERAL COMMENTS

1. The Quality Control (QC) procedures provided in the Draft Work Plan are presented in Appendix A Quality Control Plan. The Quality Control Plan provides sufficient details of the contractor's QC process and the standards which will be applied. However, no reference to, or description of, the quality process which will be employed by the Navy to confirm that the contractor's work meets Navy standards is provided in the Draft Work Plan or its appendices. Please provide the EPA with a description of the quality process by which the Navy will confirm that the contractor has complied with the quality plan appended to the Draft Work Plan.

SPECIFIC COMMENTS

1. **Section 1.1 Project Background, Page 3:** The fourth paragraph of this section begins with, "The term 'UXO' was used in previous investigative reports as a general term for any MEC item (formerly called ordnance and explosives [OE] found at Mare Island." The remainder of this paragraph provides a definition of UXO and then notes that UXO have never been found at Mare Island. While this assertion is very likely correct, the definition of UXO provided in the paragraph does not match the one found in the Glossary of Terms on page ix of the Draft Work Plan. Of particular concern is the use of the word "or" in place of the word "and" just prior to the portion of the definition preceded by "(3)." This use of "or" where "and" should be used changes the definition in an unacceptable manner.

Please review the definition found on page ix of the Draft Work Plan and in the section cited above, and ensure that both match the official definition found in 10 U.S.C 101(e)(5)(A) through (C).

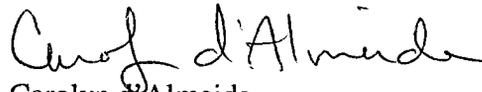
2. **Section 2.4 Draft Conceptual Site Model (ECC2002), Page 18:** The last sentence of the first paragraph of this section states that, "The principal areas of concern are shown in Figures 8-1 and 8-2 above and are as follows:" However, no figures labeled "8-1" or "8-2" appear to be included in the Draft Work Plan. There are two figures (Figure 1-4 South Shore Area [SSA], page 13; and Figure 1-5 Production Manufacturing Area [PMA], page 15) which precede the Section 2.4 verbiage and show the areas of concern. Please review the noted figures and revise the cited sentence to provide the correct nomenclature for the actual figures presented in the Draft Work Plan.
3. **Section 2.6 Analysis of RI Phase I Results, Page 20:** The first sentence in the section indicates that, "Table 10-1 below shows the total number of target anomalies detected at each of the four AOCs (Area A, Area B, Area C, and the PMA)." However, no table labeled 10-1 could be found in the Draft Work Plan. Table 2-1 MINS - Geophysical Target Tally for areas to be intrusively investigated (SSA - Area B Nearshore, Zones I, II, III and Area C Nearshore) is located in the cited section, but it does not contain the target anomaly information for the PMA. Please review the cited section and tables and modify them as necessary to present the correct information in a consistent manner.
4. **Figure 3-1 Overview of All Target Anomalies in 2005 RI Phase II Area and Figure 3-2 Overview of All Target Anomalies to be Investigated in 2005 RI Phase II Area, Pages 29 and 30:** These two figures appear to be the same and it is not clear why there are two figures presented with different captions. They do not display the location of all of the Large Mass Anomalies noted as being present in their respective Legends, or as cited in Section 3.0 Technical Approach, pages 27 and 28. Please review the cited portions of the Draft Work Plan and correct them as necessary.
5. **Section 3.5.1 Exclusion Zone, Page 34:** The second paragraph of this section notes that, "All MEC encountered onshore adjacent to the offshore sites has been unfuzed and unfired." While the unfired assertion is likely correct, the unfuzed statement should be subjected to further analysis. The document entitled Conceptual Site Model for the Southern Offshore MEC Sites, Former Mare Island Naval Shipyard, Vallejo, California, contains a table listed as Table A1-Recovered Live Ordnance Material. Included in this table are a number of MEC items which are described as a "round." A round is defined as everything required to fire a weapon one time. It includes the primer, propellant, cartridge case (if necessary), projectile, and fuze (if necessary). This means that each item described as a round should be suspected of having a fuze present if a round of that type is normally fuzed. Also, a number of Naval projectiles which are normally issued with a base fuze present are included in the table. Please review the cited section of the Draft Work Plan and the listed Conceptual Site Model table and revise the section of the Draft Work Plan as necessary.
6. **Attachment 1 SOP-1 MEC Intrusive Investigation Procedures, Section 7.4 MEC Handling and Storage Procedures, Page 7:** The next-to-last sentence of the second

paragraph of this section indicates that, "It is assumed that all MEC items discovered will be 'safe-to-move' because there is no indication that the Mare Island facilities were ever used as munitions firing ranges or impact areas." However, it is possible, although very unlikely, that a MEC item may be discovered which is deemed unsafe to move by the appropriate authorities. That possibility should be planned for on a contingency basis and the appropriate response procedures should be included in this attachment, or a reference should be provided therein as to where the procedures may be found. Please revise the cited section to include procedures for the noted contingency or a reference as to where the response procedures may be found.

7. **Attachment 3 SOP-3 Sedimentation Analyses.** This section discusses standard operating procedures for collecting radioisotope cores to evaluate sedimentation rates and Sedflume cores to evaluate sediment erosion rates. Appendix B presents a brief description of the intent of these studies, but data quality objectives have not been presented, and these details need to be fleshed out in the next version of the work plan. While the radioisotope cores may provide useful information for estimating sedimentation rates, to be meaningful, the Sedflume studies will also require direct measurement of localized current velocities at the bottom of the water column to understand the shear stresses to which the sediments are actually subjected.

Thank you for the opportunity to review this report. If you have any questions, please call me at (415) 972-3150.

Sincerely,



Carolyn d'Almeida
Remedial Project Manager

cc: Gary Riley, RWQCB
Chip Gribble, DTSC
Henry Chui, DTSC