

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD

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Naval Facilities Engineering Command
900 Commodore Way, Bldg. 101
San Bruno, CA 94066-0720

December 31, 1993
File No. 2189.8009 [EA]

Subject: Comments on the Draft Additional Petroleum Sites Investigation Work Plan, December 17, 1993

Dear Mr Chao:

The following comments are based on the San Francisco Bay Regional Water Quality Control Board (RWQCB) staff's review of the subject document.

GENERAL COMMENTS:

1. The objective of the additional field work included in this work plan is to characterize the soils and groundwater at the various tank and sump sites, with the ultimate goal of obtaining closure of the sites from the State of California. The Tri-Regional Board guidelines state that all soil and groundwater samples must be analyzed in a State certified laboratory in order to comply with Chapter 16 of Title 23 of the California Code of Regulations. In addition, as stated on page 6 of the Tri-Regional Guidelines, laboratory analyses are required for all closure decisions. For these reasons RWQCB staff can not accept the proposed analysis plan in which only one third of the samples are sent to a certified laboratory and the majority of the samples are analyzed with the "Geoprobe close support analytical laboratory" (CSAL). On-site analysis is generally acceptable where screening level data is appropriate; such as for determining placement of monitoring wells, or during excavation projects where rough estimates of the soil concentrations are utilized to guide the project. During the Site 12 project, on-site laboratory analyses were conducted to determine excavation areas. There was no direct correlation between the off-site and on-site laboratory results. Though a rough estimation of the differences in the two analyses were used for excavation purposes, the on-site lab results were almost always less than the results from the off-site certified laboratory. At many of the tanks and sump sites included in this work plan there is little or no data to determine site characterization. As stated in the work plan text, "existing soil data is too sparse to define contaminated soil to the extent necessary for corrective action". In order to close these sites or make decisions regarding further investigation, certified laboratory analysis will be required.

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2. Screening level groundwater samples can be used to help place monitor wells, but not for final characterization. In areas where the soil contamination is above 100 parts per million (ppm) total petroleum hydrocarbons (TPH) at least one monitor well must be installed within ten feet of the source area, in the downgradient direction, in order to comply with State guidelines and properly characterize the site.

3. In general, rationale for soil sampling locations is not included the sites. Brief rationale should be included in the text to support the placement of the borings and "hydropunch" sampling locations.

4. Soil borings and water samples collected at oil/water separators should be analyzed for oil and grease to determine if long-chain hydrocarbons, common in waste oils, are present. Analysis for only extractable hydrocarbons will not pick up the longer chained hydrocarbons.

SPECIFIC COMMENTS:

5. pg. 2, section 2.0 The status of Site 12 should be included in the overview of the purpose and scope of the work plan. Site 12 is a petroleum contaminated site, and though it will not be included in this field effort, it should be noted for clarification.

6. pg. 6, section 4.2 Analytical results from the "support analysis laboratory" can not be used for site characterization purposes. Regulatory decisions regarding corrective actions or closure of sites must be based on analytical results from a State certified laboratory, as stated in the general comments.

7. pg. 10, paragraph 1 The text states that sumps 25 and 58 were scheduled to be removed in the fall of 1993, but to date these sumps have not been removed. The text should include a proposed schedule for the removal of these sumps since sampling directly under and around the sumps will be obtained after excavation. It would be beneficial if removal of these sumps could coincide with this field effort so that characterization of the soil and groundwater can be complete and decisions regarding corrective action or closure can be determined as soon as possible.

8. pg. 10, Site 15 Please note in the text that NASA will be removing Sump 64. Please include the status of efforts to locate Sump 65 in this section. If the location of Sump 65 has not been determined yet, field work should include some efforts to find the sump. Rationale should be included for the placement of the soil borings on Figure 6, especially since the location of the sump is unknown.

9. pg. 14, Figure 7 Please include rationale for the soil sampling locations at Tank 2, especially boring #GPT2-4 which is a

substantial distance (greater than 10 feet as defined in the Tri-Regional guidelines) from the source area.

10. pg. 15, Figure 8 Data presented in the Petroleum Characterization Report showed the highest concentrations of diesel at Tank 43, 2000 ppm and 1400 ppm, in soil samples from the south and west excavation walls. Therefore, the rationale for placement of the proposed soil borings is not clear. The borings are very far away from the source area, boring #GP43-1 is over 50 feet away from the source area, and they are all placed to the north and northeast, which does not address the extent of the residual contamination found to the south and the west of the excavation area. Borings need to be included in the work plan to address the contamination in the south and west wall of the excavation.

11. pg. 16, Figure 9 As stated in the RWQCB comments on the Draft Installation Restoration Program Petroleum Sites (and Wastewater Tanks and Sumps) Corrective Action Plan, October 1993, groundwater data needs to be collected at Tank 53 since there is no groundwater data for the area where significant soil contamination has been found. This work plan should include sampling of groundwater in the area for several reasons, such as the groundwater elevation is very high and easily impacted by soil contamination, groundwater movement may be locally affected by the drain and drainage area and the highest soil contamination appears to be near the drain area.

Please provide rationale for the placement of the soil borings at Tank 53. Sample point 23 showed the highest concentration of petroleum related contamination in past investigations and the extent of soil contamination to the east of this sampling point has not been defined. This area needs to be better characterized to define the extent of the potential impact from overland flow of petroleum products spilled in the area.

12. pg. 19, Table 1 Soil samples at Tank 59 must also be analyzed for oil and grease.

13. pg. 21, section 4.3 Hydropunch samples should be collected within upper portions of water bearing zones, not "near the water table". The use of on-site sample analysis, with verification samples sent to an off-site laboratory, is appropriate for hydropunch samples used to screen groundwater contamination and for determining monitor well placement. However, sites where soil contamination is above 100 ppm, a monitoring well must be installed to document the water quality over time as required by the Tri-Regional Guidelines. Screening level data such as hydropunch can not be used as the only data to determine closure at a site. RWQCB staff encourage the Navy to install monitoring wells during this field effort to avoid delays in determining complete site characterization.

14. pg. 23, Site 15 Coordination with the regulatory agencies should be an ongoing effort during the field work. The Navy and

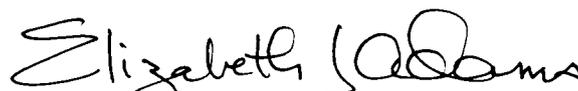
regulatory agencies will need to confer and agree on what levels of groundwater contamination are "significant" and warrant the installation of a monitoring well. If soil samples show concentrations above 100 ppm TPH then at a minimum, one monitoring well in the documented downgradient direction will be required.

15. pg. 23, Site 19 Groundwater samples need to be collected within contaminated soil areas at Tank 53 as described in comment #11.

16. pg.26, Table 2 Groundwater samples at Sump 59 should be analyzed for oil and grease since the sump handles waste oils.

If you have any questions regarding these comments, please call me at the San Francisco Bay Regional Water Quality Control Board at (510) 286-3980.

Sincerely,



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Project Manager

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C. Joseph Chou, DTSC