

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD

SAN FRANCISCO BAY REGION

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

August 4, 1993
File No. 2189.8009 [EA]

**Subject: Comments on the Draft Installation Restoration Program
Petroleum Sites Characterization Report, July 1993.**

Dear Mr. Chao:

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

General Comments:

This document refers to the tank closures and cleanup as RCRA activities, occurring under RCRA guidelines. These statement do not fully reflect the agreement that the regulatory agencies and the Navy have negotiated for the Federal Facilities Agreement (FFA) amendment which describes the separation of the petroleum related sites from the CERCLA activities. The Department of Toxic Substance Control (DTSC) staff clearly stated that, at this point in the project, the petroleum sites should not be brought into the formal RCRA program due to the administrative and program requirements which would hinder the progress of the clean up at these sites. All parties agreed that the petroleum sites should fall primarily under the jurisdiction of State petroleum regulations and that all petroleum cleanup "shall be conducted in a manner consistent with Sections 6001, 7003 and 9007 of RCRA; 40 Code of Federal Regulations Part 280; California Health and Safety Code Division 20, Chapters 6.5, 6.7, 6.75, and 6.8; California Water Code Division 7; California Code of Regulations Title 23, Division 3, Chapter 16; and Water Quality Control Plans, as applicable." Therefore, all documents related to petroleum cleanup or petroleum site closures should include the emphasis of our agreement which is that activities at petroleum sites must be consistent with both specific sections of RCRA and the listed State requirements and guidelines. Specific guidance documents for investigation and closure of underground tank sites have been developed from regulations outlined in California Code of Regulations (CCR) Title 23, such as the Tri-Regional Board Staff Recommendations for Preliminary Evaluation and Investigation of Underground Tank Sites, 1990 which is routinely implemented within the San Francisco Bay region. Any future investigations at the petroleum sites should be consistent with the requirements outlined in these documents. In addition, obtaining regulatory approval for

closures of tank sites need to follow the State guidelines. We will gladly supply the Navy with copies of any of these documents if they are needed.

Some, but not all, of the guidelines for tank excavations and investigations are as follows:

- * Visible inspection of the tank systems and soils is required to determine if there was an unauthorized release. The condition of the soils and tank needs to be documented.

- * Samples of soil and groundwater from excavations must be analyzed in a State certified lab.

- * For tanks, 10,000 gallons or less, at least two soil samples from within the first two feet of native soil under the tank must be collected and analyzed, as well as sidewall samples to verify that no lateral movement of contamination has occurred. For tanks greater than 10,000 gallons four soil samples from the bottom of the excavation are needed.

- * At least one water sample is required if water is present in the excavation.

- * Samples are to be analyzed for the appropriate parameters, dependent on the contents of the tank, listed in the enclosed Table 2.

- * Piping needs to be excavated and soil must be sampled, for laboratory analysis, every 20 feet.

- * If soil contamination is present, groundwater quality must be confirmed by a monitoring well no more than ten feet from the tank site in the confirmed downgradient direction.

- * Monitor wells need to be screened to include the seasonally high water level in order to detect the contamination. Often wells constructed to define solvent plumes will not be screened in the appropriate zone to evaluate petroleum contamination.

- * Impact to groundwater is evaluated by reviewing the soil contamination within the soil depth that represents the seasonally high water level.

- * Laboratory data sheets for all soil and groundwater analyses must be submitted to Regional Board staff.

Though many of these tank investigations have been conducted in the past, and may not have followed State guidelines, it is essential that any of the information above be included in this characterization report if it is available. For instance, this report should state whether groundwater was present in the bottom of the excavations, and if so, whether or not the groundwater was sampled, the documented condition of the tank, and the screened intervals of the monitoring wells at the tank site. All laboratory sheets corresponding to the soil and groundwater data need to be submitted as an attachment to this report.

All future investigations must follow the guidelines outlined in the Tri-Regional guidelines. A work plan needs to be submitted and reviewed by the regulatory agencies before any future field work occurs.

Groundwater levels may be much higher now than they have been in the recent past due to the return of our normal winter rains. The evaluation of these sites needs to include the most recent groundwater data to meet the intent of the Tri-Regional guidelines.

Please include figures which show the tank sites and the soil boring and monitoring well locations associated with the site. This is done for some sites, and would be useful for Site 19 also. Quarterly monitoring events at Moffett Field do not always include all the wells within a site. It would be helpful if when the text refers to a sampling event that either the monitoring well locations which were sampled are included, or it is made clear that all the wells in the vicinity of the tank were sampled.

Boring logs for the monitor wells which are being used to evaluate groundwater impact at a site need to be included in this report. It is essential that information such as the screened interval and the location of the saturated and unsaturated zones within a boring be presented in order to evaluate the data. As mentioned earlier, many wells which are designed to detect solvent contamination may be screened at the bottom of the saturated zone instead of the top of the saturated zone, which is the proper zone to detect hydrocarbon contamination.

Specific Comments:

pg. 1, paragraph 2 Please state in the text that clean up of petroleum contaminated sites will also follow State guidelines.

pg. 6, Sec. 2.0, Table 4, Table 9, Table 15 The tables showing the groundwater analyses from monitoring wells near the tank sites need to include the screened interval, the downgradient distance from the tank site, and the date that the samples were taken. There are data from several different monitoring events presented in this report. What criteria is being used to determine which groundwater data is being presented?

sec. 2.1 Are the above ground french drain inlets at Site 5 still open, or are they sealed?

Table 1 What is the difference between a "receiving" and a "working" tank?

pg. 13, sec. 2.1.3 Please include the soil boring locations where free phase fuel was detected. The text states that free phase product was detected in the Site 5 wells originally but has not returned. When were the wells last checked for free product? Please include this information in the text. The TPH detections, which did not depict a typical JP5 signature, should be included in Table 4. In evaluating the groundwater for the site, Regional Board staff needs to review the analytical results. Statements such as "samples collected in November 1992...indicated much lower levels of TPH" need to be backed up with analytical results and the laboratory data sheets.

Table 5 & Table 7 Without soil data to evaluate, no conclusions can be made regarding the remaining tanks which are scheduled to be removed. These removals should follow the Tri-Regional guidelines.

pg. 19 Were any soil samples taken from the bottom of the excavations for tanks 56C and 56D? Is so, please include the analytical results.

pg. 27, sec. 2.4.1 Any sample results from the removal of Tank 54 should be included in the text.

pg. 28, paragraph 3 There is a potential for metals contamination at Sump 65. Soil and groundwater samples collected during the removal of this sump should be analyzed for metals.

sec. 2.4.2 Soil data will be required in order to fully evaluate and close these sump sites.

pg. 30, sec. 2.4.3 In order to evaluate and close these sites in accordance with State regulations, groundwater data within approximately ten feet of the potential source area will need to be collected, if soil contamination is found at the site. "Hydropunch" techniques can be used as a screening tool and to evaluate the most appropriate location for wells.

Table 9 Most of the downgradient wells presented in this table are too far away from the potential source to be used as an indicator of groundwater quality. In addition, please include the screened intervals of the wells within approximately ten feet of the source?

pg. 35, sec. 2.5.2 Were any soil samples taken from the bottom of the excavation? If so, what were the results? Was groundwater present in the bottom of the excavation, and was it sampled? Please include this information if it is available.

Figure 7 Please include the location of boring #TP43-16Y on the figure.

pg. 45, sec. 3.0 The text needs to state that these tanks and sumps will be closed under State guidelines and consistent with the RCRA sections stated in the FFA.

pg. 47, sec. 3.1 The work plans for further investigations at Site 5, and any other sites, need to be reviewed by the regulatory agencies.

pg. 49, sec. 3.2 The removals of Tanks 32 and 87, as well as any other removals, are required to follow the Tri-Regional guidelines as well as the regulations cited. Confirmatory soil samples from the bottom of the excavation will need to be collected and analyzed for Tank 54.

pg. 50 Have any soil samples been collected adjacent to Sump 59 to confirm that it is not leaking? Regional Board staff strongly urge the Navy to investigate the soils surrounding Sumps 63 and 64 to

determine if there has been a historic release. There is not enough data on sumps 54, 59, 63, and 65 to close the sites in accordance with State guidelines. Soils data is required for these sumps, and then depending on the soil quality, groundwater may need to be further evaluated.

pg. 51, Tank 14 More data is required in order to fully evaluate and determine if groundwater has been impacted at Tank 14. Was there groundwater in the excavation? Were samples taken from the bottom of the excavation, or only from the sidewalls? How large was the excavation after completion? What soil was used to backfill the excavation? Please provide as much information as available regarding this tank.

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

Sincerely,



Elizabeth J. Adams
Project Manager

cc: Michael Gill, US EPA
Mail Stop H-9-2

Chip Gribble, DTSC