

prc ENVIRONMENTAL MANAGEMENT INC.

MEMORANDUM

SAN FRANCISCO OFFICE

Date : September 18, 1991
To : Ernest Galang
Navy EIC
From : Ken Bowen
PRC Environmental Management, Inc.
Subject : Response to review comments and Regional Water Quality Control
for the document Feasibility Study of Floating Product Removal,
Naval Station, Treasure Island, San Francisco, CA

Enclosed are PRC Environmental Management, Inc. (PRC) responses to the review comments from the Western Division, Naval Facilities Engineering Command (WESTNAVFACENCOM), California Department of Toxic Substance Control (DTSC), and Regional Water Quality Control Board (RWQCB) on the document Feasibility Study of Floating Product Removal, Naval Station, Treasure Island, San Francisco, CA.

WESTNAVFACENCOM Comments on "Feasibility (Suitability) Study of Floating Product Removal at Naval Station Treasure Island"

General Comment:

Change the title of document to Suitability Study of Floating Product Removal. Separate the Tables and Figures for the work plan and "index and tab" them for quick reference. The Health and Safety Plan is a separate document and must be "indexed and tabbed" with its attachments as Part 2 or Volume 2 and not as an appendix to the work plan.

Response: The title has been changed to Suitability Study of Floating Product Removal. The tables and figures have been separated and are indexed and tabbed. The Health and Safety Plan has been made into a separate document as Volume 2.

Specific Comments:

1) Page 1, Section 1.1, third sentence

Comment: Revise "Sampling and Analysis Plan (SAP)" to "Field Sampling Plan (FSP)".

Response: The revision has been made in the text.

2) Figure 4, Legend.

Comment: Revise "miscallaneous" to "miscellaneous".

Response: The legend has been revised.

3) Page 16, Section 2.4.2, third paragraph, fourth sentence

Comment: Add another zero to "6,600,00".

Response: A zero has been added to 6,600,00 so it now reads 6,600,000.

4) Page 19, Section 2.4.2, second paragraph.

Comment: The concentrations are missing zeros.

Response: Zeros have been added to the concentrations.

5) Page 28, Section 3.2.4. First complete paragraph

Comment: Revise "Pabdopulas" to "Papadopulos".

Response: "Pabdopulas" has been revised to "Papadopulos".

6) Page 43, Table 6

Comment: Letters are overlapping. Revise and abbreviate if possible.

Response: The tables have been revised.

7) HSP Page 2, First complete paragraph

Comment: Attach SOP's if possible.

Response: The SOP's have been attached.

8) HSP Page 3, first complete paragraph

Comment: Revise "visable" to "visible".

Response: The change has been made.

9) HSP Page 16, first paragraph

Comment: Revise "bits" for "bites".

Response: The change has been made.

10) HSP Page 40, fifth paragraph.

Comment: Revise "instrumentaiton" to "instrumentation"

Response: The change has been made.

11) HSP Page 71, Section 5.3, Second Sentence.

Comment: Revise "is" to "in".

Response: The change has been made.

Response to DTSC Comments on "Suitability Study of Floating Product Removal, Treasure Island Naval Station"

General Comment:

The report is generally satisfactory for its intended purpose. However, as discussed and agreed during the July 30, 1991 meeting at Treasure Island, agencies would prefer to call this investigation "Suitability Study of Floating Product Removal." The word change from "Feasibility" to "Suitability" is to differentiate this investigation from the more detailed Feasibility Study investigation that is going to be performed at the Fire Training Area and Fuel Farm Area once the size and overall extent of contamination at these sites are fully delineated by the Navy. As proposed by the Navy, RF/FS investigations at these two sites along with the Former Bunker Area (Site 12) will be accelerated due to the apparent public and environmental concerns at these sites.

Response: The study has been renamed "Suitability Study of Floating Product Removal".

Specific Comments:

1) Page 21, section 3.2.1, first sentence

Comment: Previously surveyed reference (datum) points should be located and remarked. If the Navy is not sure about the location of the reference point for each well, a licensed surveyor should resurvey the reference points prior to collection of water level and product thickness measurements. All reference points and water level measurements should be reported in feet below (negative) or feet above (positive) mean sea level (msl). Product thickness and depth to water column should be reported in inches or in feet.

Response: Section 3.2.1 has been rewritten as follows:

Water levels and product thickness will be measured in each well. Water level will be measured using an electronic sounder. Product thickness will be measured using either a clear Teflon bailer or an interface probe. All water level and product thickness measurements will be made to the nearest 0.01 foot. Previously surveyed reference (datum) points will be located and remarked. All reference points and water level measurements will be reported in feet below (negative) or feet above (positive) mean sea level (msl). Product thickness and depth to water column will be reported in inches or in feet.

2) Page 28, Section 3.2.4 middle paragraph of the page

Comment: The methods of Bouwer (19189), and Bouwer and Rice (1976) are mainly used for an unconfined aquifer and the method of Papadopulos et al. (1973) is used for a confined aquifer. Since ground water at the sites is unconfined, the Navy should adopt the Bouwer method.

Response: The Bouwer method of analysis will be adopted as the primary method of analysis.

3) Page 34, Section 4.3

Comment: Quantitation limits for analytes reported should be included as one of the quality assurance objectives. Mr. Fred Seto (Tel No. 415-540-3388) of State's Hazardous Materials Laboratory (HML) should be contacted to obtain most recent quantitation limits.

Response: Quantitation limits have been included and are as follows: BTEX 2 $\mu\text{g/l}$, oil and grease 5 $\mu\text{g/l}$ and TPH purgeables 0.5 $\text{m}\mu\text{/l}$.

4) Page 37, Table 5

Comment: Direct reading instrument, such as PID should be included in this table since page 16 of the Health and Safety section of this report included this instrument for initial site survey of wells.

Response: The PID has been added to table 16

5) Page 40, section 4.9.1

Comment: Field blanks and matrix spikes should included in the field quality control samples. A blank or a matrix spike/matrix spike duplicate should be analyzed: one for every single matrix; one for every batch; or one for every 20 field samples. The described frequency of field QA/QC samples should provide the most complete and adequate set of QA/QC data.

Response: Field blanks and matrix spike have been included. The following have been included:

Field Blanks

Field blanks consist of the source water used in detergent wash and steam cleaning decontamination activities. The domestic water source on the base will be used for decontamination and well construction during the investigation. The water may be obtained at taps of fire hydrants as approved by the base. At a minimum, one field blank from each event or work period will be collected and analyzed for the same parameters as the samples collected during the event. A sampling event is defined as a period of time during which drilling and sampling activities occur. An extended absence following by a return to the site (between quarterly sampling rounds, for example) would constitute two events.

MS/MSD

Matrix spike and matrix spike duplicate (MS/MSD) samples will be selected by the laboratory in coordination with the site manager. Per EPA Region 9 guidance, MS/MSD pairs will be analyzed at a rate of one pair per analytical batch of up to 20 samples for each matrix. Additional sample volume will be collected for MS/MSD water samples; MS/MSD soil and sediment samples will be obtained from the same container as the field sample. The MS/MSD samples will be placed in bottles, labeled appropriately, and identified as such on the chain-of-custody reports.

6) Page 43, Table 6

Comment: Direct reading instrument, such as PID should be included in this table since page 16 of the Health and Safety section of this report included this instrument for initial site survey of wells.

Response: PID has been included in table 6.

Response to RWQCB Comment on Draft Field Work Plan for Floating Product removal CTO-141

General Comment:

Based upon the large quantity of floating product found at the site RWQCB, staff anticipate that a floating product recovery system will be installed as an interim measure. Periodic removal of floating product from the onsite wells will not be adequate. RWQCB policy dictates that floating product be given highest priority and that an interim floating product removal system be installed as soon as possible.

Response: Based on the results of this investigation, product recovery systems will be designed and installed for both sites.

Specific Comments:

1) Page 12

Comment: The workplan states that samples were taken from "nine piezometers" and proposes to use them for future groundwater sampling. Why are piezometers being used to monitor groundwater? Piezometers are constructed only for measuring groundwater elevation and not the chemical and physical nature of groundwater from an aquifer. Use of the term "piezometer" indicates that the objects were not intended to function as groundwater monitoring wells nor are they capable of functioning as groundwater monitoring wells. Screen length, slot size, diameter, construction techniques and materials should be evaluated before using the piezometer as a monitoring well. Alternatively, the Navy could use the piezometer to determine the depth to water and gradient of groundwater in their immediate area and then install permanent monitoring wells to monitor the appropriate zone.

Response: The purpose of this project is to evaluate the suitability of using existing monitoring wells as product recovery wells. Although the piezometers are not constructed

properly to be used as long term monitoring wells, the intent is to use them to provide an initial assessment of the site to evaluate floating product thickness, aquifer parameters and concentration of hydrocarbons in the ground water. This will provide the necessary data to assist in locating and designing monitoring and product recovery wells.

2) Page 20, 27; Section 3.2.4

Comment: The Navy should evaluate the use of pump tests as well as slug test. Since groundwater remediation is anticipated for the two locations and the contaminants are easily disposed of, the Navy should conduct pump tests to assess the properties of the fill and sediments at the site.

Response: The monitoring wells installed at the fire training area are 2-inch wells. Although pumps presently exist which can be used in 2-inch wells, low flow rates and the lack of control over flow rates limit their use. Based on data from this investigation, locations will be selected for 4 to 6 inch diameter product recover/extraction wells. Once these wells have been installed long-term pumping tests will be conducted.