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Mr. Mark Malinowski
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Site Mitigation Branch
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Berkeley, CA 94710

Dear Mr. Flippo and Mr. Malinowski:

Enclosed please find the responses to comments on the Interim Reports for sites IR-6, IR-8 and IR-9 at Naval Station, Treasure Island, Hunters Point Annex (HPA).

Should you have any questions regarding this matter, the point of contact is Commander, Western Division, Naval Facilities Engineering Command (Attn: Louise T. Lew, Code 1811, (415) 244-2551.)

By copy of this letter, the document is also being provided to other concerned regulatory agencies.

Sincerely,

Original signed by:

MICHAEL A. MIGUEL
Head, Environmental Restoration Branch

Encl:

(1) Response to Agency Comments on the IR-6, IR-8 and IR-9 Interim Reports

Copy to:

Regional Water Quality Control Board (Attn: Steve Ritchie)
Bay Area Air Quality Management District (Attn: Scott Lutz)
California Dept. of Fish & Game (Attn: Mike Rugg)
U.S. Fish & Wildlife Service (Attn: Steve Schwarzback)
National Oceanic & Atmospheric Administration (Attn: Chip Demarest)
Hunters Point Technical Review Committee Public Member (Attn: Rev. Arelious Walker)
City and County of San Francisco (Attn: David Wells)
San Francisco District Attorney (Attn: Steve Castleman)

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**NAVY RESPONSE TO EPA COMMENTS
(IR-6 INTERIM REPORT)**

The following are EPA comments on the draft Interim Report presented in their letter dated May 8, 1990, and the Navy's responses.

Comment

Page 5, paragraph 2. The Sampling Plan for the Group II sites indicates that geophysical surveys as well as radioactivity monitoring would be performed during the reconnaissance RI activities. Because the location of underground piping has not been confirmed (page 3 and 4), it is important that the geophysical surveys be conducted prior to installation of the next round of borings and monitoring wells, particularly Wells 23, 27, and 32. Both geophysical surveys and the radioactivity monitoring is also important to fully characterize the nature and extent of contamination in the vicinity of the site.

Response

The radioactivity survey was completed during the Reconnaissance Investigation and the results were presented in HLA's report entitled Reconnaissance Activities Report, Remedial Investigation/Feasibility Studies, Naval Station, Treasure Island Hunters Point Annex, San Francisco, California, dated August 9, 1990. Geophysical surveys were used to clear all borings before drilling occurred. Locations of buried pipes were marked on the ground surface. The use of geophysical surveys for further site characterization will be evaluated.

Comment

Page 6, paragraph 4. There is an error in the listing of the borings that were completed. The paragraph indicates that Borings B001, B002, B006, B009, B010, B013, B017, B026, B033, B036 and B037 were completed initially. Following the completion of these borings, B024, B026, and B033 were completed. This listing is in conflict with the first list of borings.

Response

Borings B026, B033, B036, and B037 were not completed initially and should be removed from that sentence. Borings B026, B033 and B036 were completed as additions to the first phase of the primary Phase RI.

Comment

Page 7, paragraph 1. The analytical methods for VOCs, SOCs, PCB/pesticides, and metals are different from those specified in the Sampling Plan. The rationale for this change should be provided.

Response

At the time that the sampling plans were prepared, the EPA level of involvement at HPA was still being defined. Subsequent to the preparation of the plans, CLP

**NAVY RESPONSE TO EPA COMMENTS
(IR-6 INTERIM REPORT)
(continued)**

analytical methods of analysis were specified. The CLP analytical methods used are equivalent to the methods specified in the sampling plans.

Comment

Page 14, paragraph 3. We appreciate the attempt to compare contaminant concentrations found to "background levels" rather than simply the TTLCs and STLCs. We note, however, that the soil in the Housing Areas may not be representative of actual background soil conditions in the vicinity of Hunters Point. As we have stated in comments on other documents, we believe a careful effort to identify background levels specific to HPA needs to be undertaken.

Response

A sampling plan for the evaluation of background soil and groundwater quality is being prepared. The results of the background sampling program will be used for the evaluation of RI data when they are available.

Comment

Page 21, paragraph 8. Generally, the placement of borings and wells is acceptable with the following two suggestions. First, we suggest you move proposed monitoring well 22 to the west (closer to the fence line) so that the lateral extent of contamination will be better defined. Although HLA believes the gradient is to the northeast, dispersion could affect groundwater contamination in the northwestern direction. Alternately, Boring 29 could be moved to the west and, if contamination is found, another monitoring well could be added to the regime in a more westerly direction.

Secondly, we suggest that Boring 42 be moved in a southeasterly direction to bound possible contamination in the easterly direction. Alternately, another monitoring well or boring could be added in that location. Because Borings 2 and 7 contained relatively high levels of contamination, the extent of contamination east of the Tank Farm should be defined.

Response

The following changes to boring locations were made following discussions with the agencies. Boring 29 was moved to the west as suggested. Boring 22 was not moved, due to proximity to a bedrock outcrop where groundwater would not be expected based on drilling during Phase 1 of the primary phase RI.

Boring 42 was not moved; however, it was decided that Boring 28 would be completed as a monitoring well if contamination was encountered in Boring 28. Boring 28, however, was not completed as a well because groundwater was not encountered.

**NAVY RESPONSE TO EPA COMMENTS
(IR-6 INTERIM REPORT)
(continued)**

Comment

Page 21, paragraph 8. The Sampling Plan for Group II Sites indicates that the wells will be screened from the base of the upper aquifer to about two or three feet above the water table. Section 8.0 of the Interim Report does not specify where the wells will be screened.

The Interim Report indicates that the bedrock is intensely fractured, friable, and moderately to deeply weathered (page 8). The Phase II Investigation does not address the possibility that the fractured bedrock may be a conduit for contamination to the bay muds, a lower aquifer, or the Bay. A plan for investigating this possibility should be included in the report.

Response

The Interim Report specifies that the wells will be screened within the fill, with the exception of Monitoring Well IR06MW30, which was to be screened in bay mud deposits that were expected to be encountered below the fill (page 21). Well construction was consistent with the specifications contained in the work plans.

The primary phase of the investigation was intended to investigate the fill material. Bedrock will be investigated, if necessary, as part of a contingency investigation.

**NAVY RESPONSE TO DHS COMMENTS IR-6 REPORTS
(IR-6 INTERIM REPORT)**

The following are DHS comments on the draft Interim Report presented in their letter dated May 8, 1990, and the Navy's responses.

Comment

Page 5, paragraph 3. The concentrations given for aldrin and PCBs conflict with concentrations identified in Section 6.3, page 12. Aldrin is not identified in the Table 2 sample results.

Response

The concentrations reported for PCBs and aldrin on page 5 were results from part of the reconnaissance investigation at Site IR-6. The results reported in Table 2 and in Section 6.3 are from samples collected during the first phase of the primary investigation; only those contaminants that were found at or above detection limits in one or more samples were presented. PCBs and aldrin were not included in Table 2 because these constituents were not detected during the Phase 1 primary investigation.

Comment

Page 14, paragraph 3. Soil sample from Housing Areas 1 and 2, should not be used as a background reference. DHS would like to see HPA develop a separate background sampling program so this issue can be addressed in future reports.

Response

A sampling plan for the evaluation of background soil and groundwater quality is being prepared. The results of the background sampling program will be used for the evaluation of RI data when they are available.

Comment

Page 18, paragraph 1. Describe in more detail "free product." Was floating product recorded? Was the soil/rock saturated and product dripping from the samples? Identify in the cross sections where "free product" was encountered.

Response

Free product was defined where the soil/rock was saturated with product and/or where product was observed dripping from samples. These situations were encountered often during the Site IR-6 investigation. In the future, free product will be identified in the cross sections and will be described in greater detail in text.

**NAVY RESPONSE TO DHS COMMENTS IR-6 REPORTS
(IR-6 INTERIM REPORT)
(continued)**

Comment

Page 21. DHS recommends that Monitoring Well 22 and Boring 29 be transposed. The current proposed location of Well 22 is very close to the original HPA shoreline. DHS is concerned that a well placed in this location would be difficult to complete. Placing the well at Boring 29 will better define the extent of contamination.

The location of Boring 40 should not be specified until geologic information from Monitoring Wells 23 and 30 and Boring 39 become available. The field geologist should be able to construct some quick cross sections to aid in placement of Boring 40.

Response

These comments and concerns were discussed with the agencies and the following changes to boring locations were made: Boring 29 was moved to west of the originally proposed location and Borings 31, 39, and 30 were spread out to about approximately 60-foot centers. Although Boring 29 was not installed as a monitoring well, Monitoring Well 35 was moved approximately 75 feet to the southwest to better define the extent of contamination. The location of Boring 40 was finalized after Boring 39 and Monitoring Wells 23 and 30 were completed. Maps showing the actual locations of all of the primary phase borings were distributed at the technical review committee meeting on June 13, 1990.

Comment

DHS agrees that the ravine could act as a potential conduit. The ravine could be better located using surface geophysical techniques.

Response

Drilling activities conducted during the second phase of the primary phase RI activities provided a better indication of the location of the ravine. The need for surface geophysical techniques will be assessed after the results of these drilling activities have been evaluated.

Comment

DHS recommends that Boring 28 be converted to a monitoring well and moved east-southeast approximately 75 feet to further define the extent of contamination.

**NAVY RESPONSE TO DHS COMMENTS IR-6 REPORTS
(IR-6 INTERIM REPORT)
(continued)**

Response

Boring 28 was moved to the southeast, approximately 75 feet, but was not completed as a well because groundwater was not encountered. Another well location was attempted 75 feet to the north; groundwater was also not encountered at this location.

Comment

Page 22. Retain the chromium VI analysis for soil samples from Boring 40. The proximity to the electroplating shop will enable this boring to be used for both sites.

Response

The soil samples from Boring 40 were analyzed for hexavalent chromium as requested by the DHS.

Comment

Please review the electroplating shop reconnaissance report recommendations on monitor well installations. If a well is proposed in the same area as Boring 40, DHS recommends to complete Boring 40 as a monitor well for use at the electroplating shop and tank farm sites.

Response

No well was planned in the same area as Boring 40, but Boring 40 was completed as a well to monitor groundwater between Sites IR-6 and IR-10.

Comment

Plates 3, 4 and 5. Please check and correct the vertical and horizontal scales.

Response

On Plates 4 and 5, the horizontal and vertical scales in the explanation were in error and had been reversed. The explanation on Plate 3 is correct. The vertical and horizontal scales on Plates 3, 4 and 5 will be corrected in the plates for the RI report for this site.

**NAVY RESPONSE TO EPA COMMENTS
(IR-9 REPORT)**

The following are EPA comments on the draft Interim Report presented in their letter dated March 27, 1990, and the Navy's responses.

Comment

Page 3, 2.1., second paragraph. This paragraph mentions "empty acid storage tanks" in addition to the dipping tanks. Plate 2 shows only one acid storage tank, the phosphoric acid tank. It would be helpful if the others were listed in the Report and were shown on Plate 2.

Response

Only 1 tank is present at the site. The sentence should read "one empty acid storage tank."

Comment

Page 4, first paragraph. This paragraph, which lists the activities of the "third investigation" of the PPY, neglects to mention the wipe sample of the paint residue, as described in the PPY Removal Action Work Plan.

Response

The wipe sample results will be included in future reports.

Comment

Pages 15-16, 6.5. The report needs to explain the purpose of comparing the analytical results for metals against the TTLCs. As with the Federal EP Tox test, TTLCs and STLCs are used to determine whether certain wastes are subject to hazardous waste regulations. At this point in the PPY investigation, the question at hand is whether there are contaminants at, or released from, the PPY which pose a threat to human health or the environment, not whether the materials at the site constitute a hazardous waste as defined in State regulations. Whenever the investigation or remedial activities at the PPY generate waste, it will be appropriate to make a hazardous waste determination. Establishing whether or not there is a problem which needs to be remediated, however, involves different analyses (i.e., risk and ecological assessments).

Response

In the absence of background analytical data for metals, the analytical results were compared to TTLCs and STLCs to provide some basis against which the data could be compared. A background sampling plan is now being developed and in the future analytical results will be compared to the background levels identified. A baseline risk assessment will be performed as part of the Public Health and Environmental Evaluation for the Group II sites.

**NAVY RESPONSE TO EPA COMMENTS
(IR-9 REPORT)
(continued)**

Comment

Page 21, 6.0, first and second bullets. While we would not argue that "the geologic chemical data do not suggest altering these locations [of borings and wells 31, 35, 36, and 37]," we do feel additional data on groundwater gradient would do much to affirm the proper placement of the wells. We would suggest installing two wells (31 and 37) first, then taking an extra day or so to identify the gradient before deciding on final placement of the remaining wells.

Not only might this help ensure that Wells 35 and 36 are in a good location, but also whether the proposed new location of Well 38 is appropriate. We question whether Well 36's new location will accomplish what you want without knowing the direction of groundwater flow. (We are also concerned that the safety of drilling next to the tank be thoroughly considered before attempting to drill there.)

Although our concerns about flow direction could be addressed later, and any gaps in the monitoring system presumably fixed with the contingency wells, we feel it make sense to obtain this information now rather than risk improper placement of these wells.

Response

Wells 31 and 37 were installed first. Using these two wells and Well PPY-1 which was previously installed, the groundwater flow direction was calculated and locations for Wells 35, 36, and 38 were adjusted. Agency concurrence on the locations of these wells was received on April 6, 1990.

Comment

Page 21, 8.0, third bullet. We believe that TPH as gasoline should continue to be a parameter, given that the tanks at Building 435, adjacent to the PPY, are reported to have contained gasoline.

Response

Soil and groundwater samples collected during the second part of the primary phase of the RI for the Picking and Plate Yard were analyzed for TPH as gas, in addition to the parameters recommended in the interim report as suggested by EPA.

**NAVY RESPONSE TO DHS COMMENTS
(IR-8 INTERIM REPORT)**

The following are DHS comments on the draft Interim Report presented in their letter dated May 4, 1990 and the Navy's responses.

Comment

PCB concentration are shown using both $\mu\text{g}/\text{kg}$ and ppm. Please maintain a consistent terminology.

Response

In future reports consistent units will be used.

Comment

6 3.0 3 Several borings were not able to be completed because of auger refusal. Please identify the borings and discuss why refusal occurred. Discuss relocation of borings.

Response

Auger refusal occurred in Borings 5 and 10. These first attempts were renamed Borings 5A and 10A. Borings 5 and 10 were then completed by moving the rig several feet to drill the boring. Based on the large boulders which are at the surface at the site, it is suspected that boulders were encountered below.

Comment

9 5.0 2 Line 10. How was the location of the excavation identified prior to RI activities?

Response

The location of the excavation was estimated from maps found in ERM West's report entitled *Groundwater Monitoring Plan, Hunters Point Naval Shipyard, PCB Spill Site Near Former Building 503*. The excavation extent is also presented on the site map found in the Group II Sampling Plan. The general location of the excavation is also evident at the site because it is covered with new asphalt. However, because the new asphalt covers a greater area than the excavation footprint, its presence only provides a general indication of the area of the excavation.

Comment

10 5.0 1 If the above referenced auger refusal was caused by cobbles or boulders in fill material, discuss in this section

Response

The presence of boulders and cobbles within the fill material will be discussed in the geologic description of the fill to be presented in the RI report for this site.

**NAVY RESPONSE TO DHS COMMENTS
(IR-8 INTERIM REPORT)
(continued)**

Comment

15 6.4 1 Line 1. The analytical result for Boring 3, 3.5-4 feet indicates oil and grease at 3,400,000 $\mu\text{g}/\text{kg}$. Please correct text.

Response

The oil and grease concentration detected in this sample is 3,800,000 $\mu\text{g}/\text{l}$. The units will be corrected in the RI report for this site.

Comment

16 6.7 2 Why wasn't a WET run for nickel?

Response

The Title 22 criteria were only used as a preliminary screening criteria for the metal concentrations. If these results were being used to evaluate whether the material was considered hazardous or nonhazardous for disposal purposes, a WET would have been run for nickel.

Comment

17 7.1 2 Discuss why the clean fill contains PCBs.

Response

During excavation, only soil with PCB concentrations greater than 25 ppm were removed. The origin of the PCBs in the fill and the source of the fill material have not been established.

Comment

18 7.5 1 Line 3. The reference to nickel concentrations "worldwide" has no relation to the Hunters Point Annex. Please remove it. Background concentrations will have to be further investigated to define localized conditions.

Response

A work plan for a background soil and groundwater study at HPA is being prepared. The results of this study will be used in evaluation of data in the future.

Comment

20 8.0 4 Line 5. The ERM-West study indicated a gradient of 0.001 ft/ft - essentially flat.

**NAVY RESPONSE TO DHS COMMENTS
(IR-8 INTERIM REPORT)
(continued)**

Response

Although the gradient is essentially flat, the data indicate a possible direction of flow. The ERM-West study was used as background data for initial placement of wells, in what appeared to be the downgradient direction. Because the gradient is small and on the basis of DHS comments and discussions, three wells, MW37, MW40 and MW41 were installed first and groundwater flow directions evaluated before placement of wells MW38 and MW39.

Comment

Line 9 The well screen length should not exceed 10 feet.

Response

Before installation of the wells, DHS was contacted and informed that there was not an evident confining layer present between the fill material and the fine sand unit below the fill material. Because there was no confining layer, the thickness of the upper aquifer, which includes both the fill and the sand unit, was greater than 10 feet. Because of possible PCB contamination, we felt that the wells should be screened from the base of the aquifer to 2 to 3 feet above the water table within the fill material. The maximum screen length installed was 30 feet. Agency concurrence was received after discussion with DHS prior to installation of the first monitoring well at IR-8 on April 27, 1990.

Comment

Illus. Plate #3. Place the Unified Soil Classification System coding (GW, GP, ML, etc.) within each section.

Response

The Unified Soil Classification System coding will be presented on future cross sections.