UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, Ca. 94105-3901

MAR 11 1994

Mr. Bill McAvoy
Remedial Project Manager
Mail Code: T4A1WM
Western Division
Naval Facilities Engineering Command
900 Commodore Drive
San Bruno, CA 94066-2402

Dear Mr. McAvoy:

We have reviewed the Draft Parcel C Site Inspection Report for the Hunters Point Annex Superfund site. We are providing the attached comments to you. These comments include recommendations for some additional sampling which should be addressed in a work plan addendum. They also point to the need to: 1) assess whether the data collected for Parcel C will be adequate for the preparation of the Parcel RI/FS, 2) give more focus to ecological issues, and 3) more thoroughly address hydrogeologic conditions.

We appreciate your full consideration of these comments in your preparation of the Draft Final SI Report. Should you have any questions, you may contact me at (415) 744-2394.

Sincerely,

Deborah Blair

for **RAYMOND SEID**
Remedial Project Manager
Federal Facilities Cleanup Office

Attachments

cc: Cyrus Shabahari, DTSC
Barbara Smith, RWQCB
Amy Brownell, SFDPH
Ray Ramos, BEC, NAVFAC WESTDIV

Comments on the Navy's
Draft Parcel C Site Inspection Report
Naval Station Treasure Island, Hunters Point Annex, San Francisco, California

General Comments

1. There are several buildings in Parcel C not included in this SI. The SI report should include a brief explanation of why they were not included in the SI

2. In proposing additional work, the SI report does not assess whether this additional work is sufficient to prepare a parcel remedial investigation (RI) report. The Navy should include an assessment of whether this additional data and existing data are sufficient to prepare a parcel RI report, public health and environmental evaluation, and feasibility study.

3. Several of the PA sites are also part of a separate underground storage tank (UST) closure program. The SI describes the proposed scope of work for additional investigation at each of the UST sites. The SI should provide supporting data used to develop the proposed UST scope of work at each site.

4. A significant portion of Parcel C is bordered by San Francisco Bay, some parts extending several hundred feet into the bay. There are many potential pathways of contaminant migration, either from Parcel C contaminant sources or through Parcel C from other Parcel sources which may contribute to risk to those biota which reside in or rely on the bay and/or its shorefront. For example, there are storm drains and sewer lines discharging to the bay from Parcel C which have a history of illicit contaminant disposal to them. There are steam lines, storm drains, sewer lines, and utilidors which may act as natural conduits transporting contaminated surface water or groundwater from contaminant sources to areas of communication with the bay. And, there is a shallow tidally-influenced aquifer to which Parcel C source contaminants may be transported via infiltration.

   The RI work plan should be integrated with the Ecological Risk Assessment, where possible. It should identify criteria to screen on-shore data for its potential to cause ecological risk to the intertidal and near shore ecosystems. And, it should include sampling locations appropriate for determining the extent to which shore-based contaminants have migrated to the bay.

Specific Comments

1. Section 1.1, "Purpose" states that one purpose of the SI is to evaluate each site for possible inclusion in the Navy's IR program. The criteria used in the evaluation should be discussed.

2. Section 2.1, "Description and History of Naval Station Treasure Island, Hunters Point Annex" should focus on the operational history specific to Parcel C.

3. Section 2.2, "Previous Investigations" does not discuss the previous PA investigations conducted at Parcel C. A summary of the results of these PA investigations should be included here.

4. Section 2.2, "Previous Investigations" states that waste chemicals from building sites 259, 231, 211/253, 217, 270, 203, and 280 were disposed of in the storm drain system. The type and quantity of waste chemicals thought to have been disposed of at these locations should be identified, as well as the time period during which disposal is suspected to have occurred.

5. Section 2.2, "Previous Investigations" states that a 1987 EMCON Associates facility-wide study identified a small area in the western portion of Parcel C suspected of containing hazardous materials. The SI should identify where this area is and if this area was investigated during the SI.

6. Section 2.4.2, "Geology." The description of stratigraphy and physiography in Parcel C is incomplete. The discussion should include the general thicknesses of geologic units at the center and edges of the parcel. Maps showing surficial geology and a vertical geologic cross-section through the parcel would greatly enhance the clarity of this discussion.

7. Section 2.4.3, "Hydrogeology" As stated in Section 1.1 "Purpose", one purpose of the SI is to assess site-specific hydrogeologic conditions. The SI states that only limited data are available for the B- and bedrock aquifers and that the B-aquifer has not been investigated in Parcel C. The various work plans proposed in the SI recommend that approximately 49 monitoring wells should be installed and sampled to maximum depths of 20 feet below ground surface during the RI. The B- and bedrock aquifers appear to have been excluded from these proposed RI activities. Data concerning the B- and bedrock aquifers in Parcel C should be collected during the RI.

8. Section 3.3, "Data Evaluation Methods" states that interim ambient levels (IALs) were used for inorganic contaminant comparisons. The IALs used in the SI were not approved by the agencies. The Navy should ascertain changes to its recommendations which might arise from a comparison of the SI data to the new IALs which were recently approved in concept.

9. Section 4.2, "Potential Receptors" states the "the discussion of potential receptors and exposure pathways presented in Preliminary Assessment, Sites PA-12 through PA-18 may be applied to the PA site investigations for the PAs in Parcel C." These PA sites are not within Parcel C. An explanation of why receptors associated with these sites are applicable to Parcel C should be provided.

10. Section 4.2, "Potential Receptors" should address present or hypothetical future nearby residents and workers as well as onsite workers and hypothetical future residents.

11. Section 4.2, "Potential Receptors" states that groundwater is not considered a primary exposure pathway because of "the limited potential for use of groundwater as a drinking water source." The discussion provided in Section 2.4 indicates that there is insufficient data available to reach this conclusion. Data necessary to evaluate an aquifers potential use should include the occurrence and areal extent, potential aquifer yield and groundwater quality. Groundwater might be a pathway of concern if contamination from the site is adversely impacting aquatic biota in the bay. The SI report should include a discussion of aquatic receptors and fisheries in the bay. The RI work plan should propose screening criteria by which to assess the potential for groundwater-carried contaminants, through communication with San Francisco Bay, to cause risk to aquatic biota.

12. Section 4.2, "Potential Receptors" states that surface water is not considered a primary exposure pathway because "surface water flows are primarily restricted to the storm and sewer system." San Francisco Bay should be considered a potential exposure pathway. Storm water discharges to San Francisco Bay could adversely impact aquatic ecological receptors. The potential receptors subsection should discuss aquatic receptors.

13. Section 5.1, "PA-45 Steam Lines" states that the steam lines were potentially used to transport waste oils containing PCBs. Table 4 indicates that analysis of three water samples (PA45ST300 - 2 samples, PA45ST301) collected during the PA-45 included TPH as Gasoline, TPH as Diesel, total recoverable petroleum hydrocarbons, and pesticides/PCBs. These analytical results are not presented in Table F1 or Table F2.

14. Section 5.2, "PA-49 Fuel Distribution Lines" states that benzo(a)pyrene was detected in soils at concentrations above the HBLc at test pit PA49TA07. There are no recommendations for additional investigation at this location. The Navy should discuss why additional investigation of this location is not recommended.

15. Section 5.3.1, "Storm Drain System" One of the stated objectives of the Storm Drain System study was to evaluate whether storm drain contaminants have been released to San Francisco Bay. Based on the storm drain sediment analytical results, a potential for contaminants to have been released to San Francisco Bay from the storm drain system exists. Storm drain outfalls are considered potential point source locations. As discussed in General Comment 5, recommendations for proposed RI activities should include sampling and analyses of bay sediments. Additionally, sampling and analyses should include storm water outfalls.

16. Section 5.3.1, "Storm Drain System." Sediment sample analytical results for storm drain PA29SW09 should be illustrated on Plate 13B or 14B.

17. Section 5.3.1, "Storm Drain System" Section 5.3.1.4, Summary of Results, Berth 4 and 5 Drainage Areas, states that no HBLs were exceeded for organic and inorganic compounds in sediments analyzed from storm drain PA28SW22. Section 5.3.1.5, Discussion and Recommendations, states that at least one HBL is exceeded by contaminants detected in sediments analyzed from storm drain PA28SW22. This contradiction should be corrected.

18. Section 5.3.1, "Storm Drain System" Table 8 indicates that storm drain PA50SW316 has a brick invert and was found to have a strong solvent odor. However, sediments from the storm drain were not sampled. Sediments from this storm drain should be sampled and analyzed.

19. Section 5.3.1, "Storm Drain System" The Navy recommends that contaminated sediments be removed from the storm drain system. It is not clear whether "contaminated sediments" refers to sediments with any detectable concentrations of contaminants or if it refers to a specific level. The term "contaminated sediment", as applied in this context, should be defined.

20. Section 5.3.1, "Storm Drain System" Contaminants were detected in sediments from all the sampled storm drains and catch basins described in PA-50. Plate 12 indicates that additional storm drains within Parcel C are present which were not included in the PA-50 the sampling program. Based on existing storm drain sediment analytical data, it is likely that the additional storm drains will contain sediments with detectable concentrations of contaminants. The recommended sediment removal program should include a study of the remaining storm drains and catch basins in Parcel C.

21. Section 5.4, "PA-51 Former Transformer Sites" Surface soil samples collected at eight locations were analyzed for CLP/PCBs. All eight locations had detectable concentrations of PCBs, five of which exceeded HBLs for PCBs The Navy recommends additional contaminant characterization and remediation at the two locations (Building 203 and Building 273) with the highest PCB concentrations; and, that because significant releases of PCBs have not occurred at the remaining six locations (PA51SS08, PA51SS10 through PA51SS14), no further action is required at these locations. The data collected during the SI do not support the no further action recommendation for the remaining four locations with soils exceeding the HBLs for PCBs. The data indicates that these locations are point sources of PCBs and that further characterization is necessary.

22. Section 6.3.1, "Buildings 211/253, Electronics, Optical, and Ordnance Shops and the Bomb Shelter (near Building 224)" states that storm drain PA26SW01 represents a potential point source and that Section 5.3 discusses proposed trenching and sampling activities around storm drain PA26SW01. These

activities are not discussed in Section 5.3. Section 5.3 should be modified to include proposed trenching and sampling at storm drain PA26SW01.

23. Section 6.3.3, "Building 231, Machine Shop" should include a recommendation for the removal and proper disposal of the "liquid and oil" materials remaining in the sumps. Following removal the sumps should be inspected for leaks.

24. Section 6.6, "PA - 58, Scrap Yard" Section 6.6.1 Field Investigation, Storm drain sample PA28SW05 is incorrectly identified and should be identified as PA28SW06.

25. Section 7.0, "Risk Assessment Summary" states that only those sites not proposed for RI activities were included in the risk assessment. Soil samples collected at PA-28, Building 27, and PA-29/30 - Abrasive Blast Facility, had detectable concentrations of inorganic and organic compounds. These sites are not proposed for RI activities and are not included in the risk assessment. Justification for excluding these sites from the risk assessment should be given in the summary.

26. It appears that the SI did not include any sampling within any of the Dry Docks themselves. The SI Report should be modified to explain this omission and identify it as a data gap for the RI.

3/11/94

MEMORANDUM

SUBJECT: Review of the Hunter's Point Parcel C Site Inspection Report

FROM: Matthew Hagemann, Hydrogeologist
Technical Support Section (H-9-3)

TO: Roberta Blank, RPM
Hunter's Point (H-9-2)

Ray Seid, RPM
Hunter's Point (H-9-2)

Stated objectives of the January 20, 1994 Draft SI include the assessment of site-specific hydrogeologic conditions and, where groundwater contamination is evident, evaluation of groundwater flow direction and gradient (Section 1.1). In my review of the SI, I found these objectives to be unaddressed. Instead, the hydrogeologic characteristics of the site are described only in qualitative and general terms.

The hydrogeologic information in the Parcel C SI is identical to that included in the Parcel B SI. Therefore, the thrust of my comments in the review of the Parcel C SI are the same as general comments made in the review of the Parcel B SI (see memo dated February 28, 1994). In short, I recommend the following:

(1) Determination of tidal influence on groundwater flow rate and direction. This determination should be made using mean hydraulic gradients as described by Serfes (1991).

(2) Quantification of the fundamental characteristics of the aquifers underlying Parcel C, including hydraulic conductivity, transmissivity, porosity, and storativity.

(3) Adherence to the format of the *Recommended Content and Presentation for Reporting Hydrogeologic Data During Site Investigations* (CBEC, 1993). (The CBEC report recommends extensive quantification of hydrogeologic characteristics during SIs.)

Other objectives of the SI as stated in Section 1.1 include the identification of contaminant migration pathways and the assessment of potential public health threats. Until the fundamental hydrogeologic information as outlined above is included in a draft SI for Parcel C, these objectives cannot be met.

References:

California Base Closure Environmental Committee, 1993. Recommended Content and Preparation for Reporting Hydrogeologic Data during Site Investigations. August 5, 1993.

Serfes, M.E., 1991. Determining Mean Hydraulic Gradient of Groundwater Affected by Tidal Fluctuations. Groundwater, vol. 29, no. 4, pp. 549 - 555.

cc: Doug Steele, H-9-3