UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

July 31, 1995

William Radzevich
Remedial Project Manager
Engineering Field Activity, West
900 Commodore Drive
San Bruno, CA 94066-5006

RE: Draft Parcel A Remedial Investigation Report, June 30, 1995

Dear Mr. Radzevich:

EPA has reviewed the above referenced documents and has the following comments:

General Comments

1. The document could be enhanced by a professional technical editor who should review the document to correct grammar. There are many awkward sentences and many sentences where the subject and verb do not agree.

2. All data, including data collected during investigations prior to the RI should be presented in tables.

3. Cross sections and boring logs must be consistent.

4. It is inappropriate to dismiss PCB contamination in Parcel A based on HBLs developed for a commercial/industrial scenario. Much of Parcel A has future residential or mixed use, so excess cancer risk should be based on 10^{-6} not 10^{-4}.

5. Revise Section 9, Summary, to address specific comments made on earlier sections of the document.

6. Provide justification for why, when the Exposure Point Concentration (EPC) for inorganics was lower than the Hunters Point Action Level (HPAL), inorganics are at ambient levels. The assumption is not defensible. Consider a statistical method such as a t-test support difference/similarity to ambient concentrations.

7. Provide some background discussion describing the earlier "characterization" activities at SI sites in the risk assessment. Specifically, describe why soil was excavated and how chemical concentrations changed before and after the

activity. The chemicals of concern are different now than they were before the "characterization" activities. Clarify why the chemicals that are of concern now were not of concern before the "characterization" occurred- possibly this is due to changing toxicity information. Explanation should be provided to fill this gap. If this description appears in another place in the RI report, reference the reader to this discussion.

8. Provide more justification for the assumption in Appendix E that inhalation of fugitive dust will not be a pathway of concern for future residents because the areas in question will most likely have ground cover in the future. What will happen that will drastically change the present conditions of unpaved or unvegetated ground in the future.

9. Section 6.2 and Appendix I: EPA concurs that there appears to be restricted foraging opportunities for ecological receptors due to the marginal habitat. Accordingly, it is more appropriate to concentrate energy and resources on the more problematic areas. However, ecological risk must be reevaluated if conditions change (e.g., habitat quality improves) or new information becomes available (e.g., changes in exposure pathways) at Parcel A.

10. Appendix H, the overall technical approach is valid, however a detailed analysis could not be conducted because much of the approach was documented in earlier correspondence. However, additional justification is required for the statistical technique used to calculate ambient levels which are addressed below in specific comments.

11. The FS should not provide a "recommended alternative" and all references to a recommended alternative should be removed. EPA's RI/FS guidance, p. 6-14, sections 6.2.6 and 6.3 make clear that the FS should end with the presentation of the comparative analysis. As stated in Section 6.3: "Following completion of the RI/FS, the results of the comparative analysis, when combined with the risk management judgments made by the decision maker, become the rationale for selecting the preferred alternative and preparing the proposed plan." This comment applies to the FS (Section 8.0 of the report) as well as to Sections 7.0 and 9.0.

12. The "left in place" language used often throughout the text could potentially alarm the public unless you explain clearly what investigations and excavations occurred prior to leaving contaminants in place. Include language that the residuals are not present at levels of concern and that any excavations were backfilled with clean fill, etc.

Executive Summary

1. Executive Summary, page ES-1, paragraphs 1 and 2. The contaminant reduction actions should be mentioned.

2. Executive Summary, page ES-2, first sentence. Delete "historic" as it is redundant.

3. Executive Summary, page ES-3, revise heading: "Scope of Parcel A Investigations"

4. Executive Summary, page ES-3, Parcel A SI Sites, first paragraph. Rewrite last sentence: "The Parcel A SI Report concluded that no further action was required at any of the SI sites.

5. Executive Summary, page ES-4, paragraph 1, fourth sentence, after "off-site" add some additional clarifying language like: "...in accordance with all applicable regulatory requirements" or "at a licensed hazardous/solid/Class__ waste landfill."

6. Executive Summary, page ES-4, paragraph 2, Delete first two sentences and replace with: "Additional investigations were conducted for the two IR site on Parcel A, IR-59 and IR-59 Jerrold Avenue Investigation (IR-59 JAI). IR-59 JAI is located in the upland portion of Parcel A while site IR-59 covers both upland and lowland ares of the parcel.

7. Executive Summary, page ES-4, paragraph 2, last sentence. Delete reference to "remaining in place."

8. Executive Summary, pages ES-4 and ES-5, Soil Investigation bullets. Delete "left in place."

9. Executive Summary, page ES-5, acronym for Chemicals of Concern is cited as COC in the acronym list but throughout the document both COC and COCs are used. Please select which acronym is preferable and make changes as appropriate to the Executive Summary and the remainder of the document.

10. Executive Summary, page ES-6, second bullet, last sentence. This sentence leaves the reader confused. For what reason and at what levels are TOG left in place and is there a concern with this residual. Please clarify. (also see General Comment 12 above.)

11. Executive Summary, page ES-7, last sentence. Delete "Parcel A" from sentence which is generically describing fate and transport.

12. Executive Summary, page ES-8, paragraph 2, sentence 1. This sentence is misleading. Similar contaminants were found in the soil beneath the liner. Thus it can be inferred that the plastic liner under the sandblast material did not keep contaminants from migrating into soil beneath the liner. This should be clarified. Delete the fourth sentence, as the

explanation given in the third sentence is more appropriate.

13. Executive Summary, page ES-8, paragraph 2, last sentence. Please rewrite this sentence: "Therefore, the Parcel A SI Report recommended no further investigation or action for these SI sites. This RI report makes a similar recommendation of no further action for the IR-59 JAI site."

14. Executive Summary, page ES-8, last paragraph, last sentence. Please add the word "air" in front of "contaminants".

15. Executive Summary, page ES-10, last sentence. Please delete this sentence. This type of statement is more appropriate for FOST documentation than an RI report. Please delete similar sentences from the last pages of the Public Summary and Section 9.

Section 1

1. Figure 1-3. All symbols used in this figure should be explained in the legend, including R-36, X, Y, buildings, fences, roads, railroad symbols, the parcel boundary symbol, the base boundary, etc. Include all present and former transformers in Parcel A on this figure. In general, there should be one figure that clearly identifies the locations of all nine sites. For both figure PS-1 and figure 1-3, please ensure that the site identification numbers are visible. The utility sites should be identified/described somehow.

2. Section 1.2, pages 1-2, third paragraph. "In 1990..." My records indicate that the FFA was signed January 22, 1991. Also "operable units" is used later in this paragraph. Please define this term. For example: "An operable unit is a distinct action taken at a Superfund site that contributes to the permanent cleanup. A number of operable units can be taken in the course of a Superfund project."

3. Section 1.2, pages 1-3 and 1-4. Show all nine sites on figures included in Section 1, including the Storm Drains, Sanitary Sewer System, and Steam Line System.

4. Section 1.3, page 1-4. For bullet three, revise: "Conduct Contaminant Fate and Transport Studies". For bullet four, why only six site mentioned as needing risk assessment? Please clarify for the reader.

5. Section 1.3, page 1-5, third sentence. Insert "the purpose of the" in front of "Parcel A FS". Also, add "and metals" after "motor oil" and "groundwater" after "bedrock".

Section 2

1. Section 2.1.1, page 2-1. Again, please show all nine sites on one or more figures.

2. Section 2.1.1, page 2-1, second sentence. Following "Within Parcel A" delete "are" and replace with ", the Navy investigated"

3. Section 2.1.1, pages 2-1 and 2-2, paragraph 2. All buildings mentioned in the text should be labeled on a figure or plate.

4. Section 2.1.2, page 2-2, paragraph 2, sentence 1. Correct typographical error in the date.

5. Section 2.2.3, Page 2-6, paragraph 2. Include dates of lawsuit.

6. Section 2.2.3, Page 2-6, paragraph 4. Citation for the ATSDR report should be the report itself not PRC or HLA summary of the report.

7. Section 2.2.3, Page 2-8, paragraph 2. Provide a map showing the storm drains and surface water flow patterns discussed in the text.

8. Section 2.2.4, Page 2-9 and 2-10. The discussion of the Parcel A geology is weak and based on a limited amount of field data. All the geologic data gathered during field activities (i.e., soil boring logs, reconnaissance mapping) should be evaluated to expand on the geologic model presented. Provide a table of geologic units identified in each boring completed at Parcel A and show the locations of the borings on the geologic map. Furthermore, the geologic mapping conducted by Bonilla should be verified with a site visit by a field geologist.

9. Section 2.2.4, Page 2-9, paragraph 2. Expand the discussion of the bedrock lithology, structure, and porosity. The second paragraph refers to cross sections B-B′ and C-C′, however, only cross sections A-A′ and B-B′ are present in Section 2. Correct this discrepancy and refer to the figure number of the cross section(s) in the text. Clarify the discussion of the structural geology. The fifth sentence seems to imply that the discussion of the structural geology only applies to the area underneath the west side of SI-43. Please specify which cross section is referred to in the sixth sentence.

10. Section 2.2.5, Page 2-10 and 2-11, general comments. Provide a more detailed overview of the hydrogeology. Summarize the results of the hydrogeologic investigation by providing a map showing groundwater flow directions, potentiometric surfaces, and/or saturated thicknesses of the A, B, and bedrock aquifers. If the data does not exist to provide this type of information discuss the uncertainties associated with the present hydrogeologic model. Provide data for the A, B, and bedrock aquifer concept. Provide a summary of the hydrogeologic data collected at each site in the text and in table format. Also please clarify which of the aquifers is

present under Parcel A.

11. Section 2.2.5, Page 2-10, paragraph 3. Explain the significance of defining bedrock by the 80 ft bgs level. It is more appropriate to base the definition of bedrock on rock type than on a depth.

12. Section 2.2.5, Page 2-10, paragraph 3. Please describe how many monitoring wells total were installed in parcel A, identify which site(s) they are in conjunction with and in which aquifers they are screened.

13. Section 2.2.6, Page 2-11, first paragraph, last sentence. Structure of RWQCB citation is peculiar. Please correct.

14. Section 2.2.6, Page 2-11 and 2-12. Show the areas of potential ecological concern on a map.

15. Section 2.2.6, Page 2-11, paragraph 2. The examples cited are animal types, not species. Either provide specific examples of species or refer to types of species. Modify the last sentence. The peregrine falcon (a T&E species) has been positively identified at HPA. Please clarify in text which listed HPA habitats are present on Parcel A.

16. Section 2.2.6, Page 2-12, paragraph 3. Clarify that the presence of the listed species in the non-native grass land at HPA were verified by field observations or reference the source.

17. Section 2.2.7. Include a figure showing the soil types across Parcel A (or all of HPA).

18. Section 2.2.7, first paragraph. Please clarify the terms "upland" and "bottom land" soils.

19. Section 2.2.8. Show the locations of IR-6, IR-18, and IR-56 and their relationship to Parcel A on a figure. Also, is it possible to include a figure showing how the Parcel A/B boundary was redrawn?

Section 3

1. General. Sections 3, 4 and the report in general should make a point of referencing the SI report and directing the reader to it for more detailed information on the SI sites.

2. General. The citation structure in this section is peculiar and may confuse the public. Example: section 3.1.1, first sentence. "...(IAS) in 1984 WESTEC Services Inc." Please insert "by" in front of WESTEC or redo citation structure. This comment applies to all citations throughout the section.

3. Section 3.0, page 3-1, second introductory paragraph. Need to include a more detailed explanation of HPALs for the public.

4. Section 3.1. Provide a table that summarizes the sites, investigations, and investigation dates, activities, scopes, and purposes.

5. Section 3.1.1, Page 3-2, paragraph 2, page 3-3, paragraph 1. Figure 1-2 does not show the borings or label the streets mentioned in this paragraph. Provide or refer to a figure that shows these locations.

6. Section 3.1.1, Page 3-3, paragraph 1, second sentence. Clarify "near-surface" depths.

7. Section 3.1.1, Page 3-3, paragraph 3, last sentence. Delete "in" and replace with "on".

8. Section 3.1.1, Page 3-3, paragraph 4. Provide additional information about the parking lot investigation and clarify why this investigation was necessary.

9. Section 3.1.2, page 3-4, last paragraph. The discussion of what various sections of this report will cover should be moved up to the introductory paragraphs of Section 3 on page 3-1.

10. Section 3.1.2.1, page 3-5, second paragraph. Please ensure that wording is added to clarify how the filed investigations of steam lines etc. specifically relate to Parcel A.

11. Section 3.1.2.2, page 3-6, paragraph 1. Additional information about the building 524 yard should be provided. It is not clear whether or not this transformer storage area is in Parcel A. Add the end of the last sentence add: "and therefore remain unknown."

12. Section 3.1.2.2, page 3-6, paragraph 2, last sentence on page. This sentence is misleading. Prior paragraphs made it sound as if there were no transformer locations on Parcel A. Please clarify.

13. Section 3.1.2.2, page 3-7. The presentation of the PCB investigation is inadequate. It is not sufficient to simply dismiss the potential for contamination without a thorough investigation. Provide a table with all Parcel A transformers including the type (pad mounted, pole mounted, etc), size, manufacturer, age, contents, maintenance history, and results of any testing. This information should be available from Navy records and examining the transformer nameplates and or purchase records. If this information is not available, soil sampling on the downslope side of transformer pads and beneath pole mounted transformers would establish whether PCBs were released.

14. Section 3.1.2.2, page 3-7, Summary of Results. Second sentence of first paragraph, should revise: "...original locations were....". First sentence of second paragraph seems to contradict previous statements. Please clarify.

15. Section 3.1.2.2, page 3-8, Conclusion and Recommendation, last sentence: "...no further investigation...was recommended in the SI Report." Need to cite the SI Report and explain the why of SI recommendations in more detail. See EPA Section 3 comment 1 above.

16. Section 3.1.2.3, page 3-9, second paragraph. Note if all samples filtered, filter size and clarify why the public should be comforted with this explanation (e.g. filtering provides a more exact representation of in situ conditions because...).

17. Section 3.1.2.2, page 3-10, Conclusion and Recommendation. Need to include discussion of conclusions with respect to metals detected.

18. Section 3.2. Provide an explanation for why these facility-wide air sampling programs were conducted or what they determined. Discuss any future plans for facility-wide air sampling programs. Clarify difference between Phases and why multi-phases required.

17. Section 3.2, paragraph 2, page 3-11, fourth sentence. The phase I sampling program referenced in this section states that no samples were collected in Parcel A, although one sample (Location 12) was just outside the boundary. On the top of page 3-12, a Location 12 sample is listed as being within the Parcel A boundary during the phase II sampling program. Figure 1-3 shows the location of the sample (Location 12) outside the Parcel A boundary. Please clarify whether there was more than one Location 12 sample location between the two sampling programs.

18. Section 3.2, paragraph 1, page 3-12, second sentence. This section states that the prevailing wind direction during all three previous studies was from the west. If so, only the air sampling conducted in 1987 (as a component of a risk assessment) could be described as likely being representative of ambient air levels from Parcel A. Both the phase I and phase II sampling programs conducted used a sampling location which was upwind of Parcel A, and therefore, is unlikely to be representative of ambient air levels from Parcel A. Modify the text in this section to reflect this or provide the basis of why it should be considered representative. A number of other sampling locations were used in the phase I and phase II programs, clarify whether or not air sampling was performed at another location downwind from Parcel A.

19. Section 3.2, Table 3-4. Analytical results from seven samples

are presented in this table. Text on page 3-12 states that analytical results from phase II sampling of Location 12 are presented on Table 3-4, but the text did not state there were seven samples, nor does Table 3-4 state that these samples were from Location 12. Please clarify that the analytical results presented in Table 3-4 are from Location 12.

20. Include a brief summary section for the air quality investigations.

Section 4

1. General. Again, Section 4 should make a point of referencing the SI report and directing the reader to it for more detailed information on the SI sites.

2. Section 4.0, Page 4-1. Clarify whether HPALs used to identify COCs. The introduction states that the nature and extent of contamination focuses on COCs. However, the discussions of site contamination focus on HPALs.

3. Section 4.1, Page 4-2, paragraph 1. State the depth (elevation) of the serpentinite contact beneath site SI-19.

4. Section 4.1.1.1, Page 4-2, paragraph 1. Show the locations of the May 1988 samples on a map. List the IDs of the composite sample collected from Median 2.

5. Section 4.1.1.1, Page 4-3, paragraph 1. The "unknown petroleum hydrocarbons" mentioned in the last sentence are not listed on Table 4-1 as stated in the last sentence of the paragraph. Either change the sentence or add the unknown compounds to Table 4-1.

6. Section 4.1.1.3, Page 4-4, paragraph 1. The paragraph states that the soil was excavated down to 24 inches to further characterize the site. However, no soil samples were analyzed during or after the excavation. Explain how excavating the soil characterized the site.

7. Section 4.1.2.1, Page 4-5, paragraph 1. The last sentence of the paragraph mentions post-excavation samples. However, there are no results from samples collected following the final excavation at site SI-19. Table 4-2 does not include sampling after the second excavation. Include the results of these samples or correct the sentence.

8. Section 4.1.3.1, page 4-9, paragraph 1, second sentence. The presence of PCBs (samples 005, 009, 011), TPH as motor oil (samples 005, 007, 009, and 011), and oil and grease (samples 005, 007, 009, and 011) in soil beneath the plastic liner strongly suggest that the liner did not prevent the downward transport of contaminants, in contrast with this sentence. If

there is an alternate explanation for the presence of these contaminants provide it, otherwise, correct this statement.

9. Section 4.1.4, Conclusions and Recommendations. In general need to include a more detailed explanation of site history - investigated, found contamination, excavated to a depth of about 3.5 feet, disposed of in accordance with applicable regulatory requirements, backfilled with clean soil, liner and mobility discussion, etc. In second paragraph, state total depth/amount of soil excavated. Finally, last sentence of page 4-10, please cite where the risk assessment can be found (SI Report and/or Section 6 of this report)

10. Section 4.2, page 4-11. Include the date building 818 was demolished to make the sequence of events clearer for the reader. Under 4.2.1.1, please note whether or not the six chlorine gas cylinders were removed as well as when and by whom.

11. Section 4, Table 4-8. Add the results of sample SS10 to the table (according to section 4.2.1.4, this sample was analyzed for SOCs).

12. Section 4.2.3, page 4-17, first paragraph. Clarify statement in sentence that begins, "Since volatile...." State the date the excavation and backfill with clean soil occurred. Air migration before that time could have occurred. This same comment applies to the discussion of COC at SI-41 in Section 4.2.3.1, paragraph 2.

13. Section 4.2.4, page 18. Please cite a source for the "oral historical accounts".

14. Section 4.2.5, Page 4-20, paragraph 1. Define "not uncommon levels" of TOG.

15. Section 4, Table 4-13 and Figure 4-7. The results listed on Table 4-13 and Figure 4-7 are in ug/kg and mg/kg, respectively. However, it appears that the results on Figure 4-7 are in ug/kg. List the results on the table and figure using the same units.

16. Section 4.2.5, page 4-21, last sentence. Please cite where this risk assessment can be found - SI report or this RI report Section 6.

17. Section 4.3.2.1, Page 4-25, paragraph 2. HBLs for Aroclor-1260 must be based on a residential scenario, not the industrial/commercial scenario discussed in Appendix F of the Parcel A SI.

18. Section 4.3.2.3, Page 4-26, paragraph 1. Use consistent units between the text and Table 4-16.

19. Section 4.3.3, page 4-27, second paragraph. Again, what about potential migration occurring prior to the excavation of contaminated soils?

20. Section 4.3.1.3, Page 4-33, paragraph 1. Correct the discrepancy: the text says "Figure 4-13 shows cross section A-A", however, Figure 4-13 shows cross section C-C'.

21. Section 4.3.4, page 4-29. Please note the depths and volumes of soil excavated. After "Contaminated soil at SI-43 was excavated" add "to a depth of __ feet for a total of __ cubic yards and excavated..." Also, please include confirmation sample results in Table 4-17.

22. Figure 4-12, per citation on bottom of page 4-33. Cross section C-C' and not A-A' is on Figure 4-12.

23. Figure 4-13. The bedrock surface is geologically incorrect. It is unacceptable to depict (from ground surface down) bedrock, soil, then bedrock as shown for borings PA50B005 and PA50B009. Bedrock surfaces do not curve back over themselves. The depiction on this figure is also inconsistent with the logs in Appendix A because the boring PA50B005 log shows only rock. The "soil" or "overburden" depicted at depth on Figure 4-13 in these two borings should be represented as a clay rich shear zone that cuts through boring PA50B009 at depth, not as an "intrusion" of overburden. Also, it is likely that the bedrock shown above the sewer line was removed during installation of the sewer line.

24. Section 4.4.4, Include discussions of any storm drain cleanout that occurred on Parcel A.

25. Section 4.5.4, general comment. Provide a map showing the concentrations of analytes that exceed action levels in samples collected from soil that was not excavated to illustrate the extent of contamination remaining in soil.

26. Section 4.5.6, page 4-55, middle of second paragraph. Regarding sentence that "contamination is localized within the lot." Please explain in more detail, were samples ND at perimeters?

27. Section 4.6.1.2, page 4-57. Delete first sentence and replace with: "During SI investigation activities at SI-43, contaminated soils were identified, excavated and disposed of in accordance with regulatory requirements. The excavated area of the site was then backfill with clean soils. Some minor, residual contamination remained in place at SI-43. However, the human health risk assessment...."

28. Section 4.6.1.3, page 4-58. Again, include discussions of any storm drain cleanout that occurred on Parcel A.

Section 5

1. General. Please summarize the full history of contaminant hits in the groundwater - metals, SVOCs and motor oil detected at one time or another. Introductory paragraphs of Section 5 only mention motor oil.

2. Section 5.1. It is difficult to distinguish between sampling locations surrounding IR59MW01F. Provide an inset of this area on Figure 5-1 or a separate figure of this area.

3. Section 5.1.2. Provide a table which summarizes monitoring well construction details (depth and elevation to top and bottom of screening, casing elevation, ground elevation).

4. Section 5.1.2, page 5-3, paragraph 1, first sentence. Please clarify that the groundwater investigation was done to assess the potential for use of Parcel A groundwater as a drinking water source.

5. Section 5.1.3.1, page 5-5, 2nd paragraph. Include in this section and subsequent sections that the Cooper method is a method for confined aquifers.

6. Section 5.1.3.1, Page 5-5, paragraph 2. The text states that aquifer thicknesses used for analyzing the aquifer parameters were based on information obtained during drilling. The log for boring IR59MW01F shows an 8-foot moist zone. Clarify why the data was analyzed using a 7-foot saturated thickness.

7. Section 5.1.3.1, 3rd paragraph. Include the average and minimum discharge rate(s) used during pump test. Specify the type of pumping equipment used during the pump test.

8. Section 5.1.4, page 5-7, last paragraph. Please update the text. All EPA data has now been provided to the Navy.

9. Section 5.2.1, page 5-9, paragraph 1, sentence 1 and section 5.5.1, page 5-26, paragraph 2. Alternatively, perhaps the water bearing fractures are oriented east west, dip to the east and daylight to the east. This scenario would also result in seeps on the east side of the ridge. A fracture trace study using aerial photographs for large scale features) and a field fracture study, where the orientation of fractures and joints are measured on outcrops would clarify preferential groundwater and contaminant migration pathways.

10. Page 5-11, first sentence. "parking log" should be "parking lot".

11. Figure 5-12. Define all symbols used within the borehole outlines in the legend.

12. Section 5.2.1, Page 5-10, top of the page. Present the lithologic support for two water-bearing zones. The evidence presented in Section 5.2.4 or the logs do not clearly demonstrate that there are two water-bearing zones (so called Zones A and B).

13. Section 5.2.1, Page 5-10, 1st paragraph. It would be more accurate to state that it is inappropriate to contour potentiometric surface elevation because different water zones are screened in each well.

14. Section 5.2.4, Page 5-13, 2nd paragraph.
    a. Define the delayed response observed in IR59MW03F and IR59MW04F. The time-drawdown and recovery curve for both monitoring wells show a steady drawdown during pumping.

    b. IR59MW04F appears to be only well that is screened at the same elevation as the pumped well IR59MW01F. Wells IR59MW04F and IR59MW05F are screened higher and well IR59MW03F is screened lower than IR59MW01F. If water is found in narrow fracture zones, present arguments to justify why these monitoring wells are reasonable and appropriate to meet the objectives of this study.

15. Section 5.2.4, page 5-14, top of the page. Well IR59MW03F is screened below the pump well.

16. Section 5.2.5, page 5-14, 1st paragraph. Describe how the water levels were corrected for barometric pressure changes.

17. Section 5.2.5, page 5-14, 2nd paragraph. Describe how barometric pressure influence groundwater levels.

18. Section 5.2.8, Page 5-17, top of the page. Present the evidence used infer a "general tendency for groundwater to flow easterly and southerly." This appears to be merely speculation since no data to support this statement is presented in this report.

19. Section 5.3, please include other contaminants in this discussion so that the public can be reassured that the trace metals (arsenic, beryllium) detected in the groundwater are not a concern.

20. Section 5.3.1, Page 5-18, paragraph 3. Provide the chromatograms for the drill rig fluids and contaminated groundwater sample.

21. Section 5.3.1, Page 5-19, top of the page. There are no vegetable-based unrefined petroleum products. All petroleum products by definition are oil-based. Delete all references to vegetable-based petroleum products.

22. Section 5.3.2, general comment. Provide a map with posted

groundwater analytical results.

23. Section 5.3.2.1, Page 5-20, paragraph 2. Other areas within the hydraulic influence of the pumping well may have higher concentrations of motor oil even though concentrations of motor oil in groundwater decreased during the pumping test. The higher concentrations could have been diluted by non-contaminated groundwater by the time it reached the pumping well. Change the text to reflect this or remove the speculative statement.

24. Section 5.3.2.2, Bottom of page 5-22. Arsenic is mentioned what about beryllium?

25. Section 5.5.1, Hydrogeology, paragraph 2.
    a. Clarify point 2. Does a groundwater divide separate Parcel A from the site of the water bottling company?
    b. Point 3. There is no evidence presented in this that groundwater tends to flow easterly from the water bottling company. Please provide evidence for groundwater flow in an easterly direction. Include a discussion of the influence of topography and fractures on groundwater flow.

26. Section 5.5.1, page 5-26, paragraph 3, sentences 2 and 3. The parking lot spring could still be hydraulically connected to the upland area. A localized rapid response to rainfall is to be expected and may mask a more subtle, delayed response to groundwater flow from the upland area. Additional arguments are needed to prove the lack of hydraulic connection.

27. Section 5.4.2, first paragraph, last sentence. This wording is peculiar. Maybe more explanation of the "preliminary background values" is warranted here. In addition, some discussion on natural occurrence of arsenic in Parcel A bedrock and soils should be included.

Section 6

1. EPA was pleased to see that PRC used the PRGs as screens as EPA had suggested. However, the major problem with this chapter is its lack of explanation. In particular, the lack of conceptual explanations. The difference between the SI and the RI reports needs to be better explained. The RI report states that the two report were evaluated differently, but why and how is the reader to interpret these results. What is the EPC, exposure point concentration, and why use it if we compare to the highest detected? Again, the document is using the "cases of cancer in a million" explanation which is incorrect. More discussion is needed for Section 6.1.2 to explain why groundwater was not included. EPA does not disagree with the conclusions presented nor with the amount of data, but several significant paragraphs need to be added to

that the reader can clearly understand the logic and thought process. It is critical that this summary be clear and without presumptions that the reader knows how a risk assessment is conducted.

EPA concurs with the overall conclusions of Section 6 but disagrees with the presentation of the rationale. For example, groundwater in parcel A is potable but the yield is low suggesting that it would not be a viable drinking water source. However, groundwater was investigated and evaluated as a drinking water source but found not to contain any compounds of concern. EPA suggests that the rationale for the various investigations and actions taken be presented in a manner consistent with the Navy's overall goal of health protectiveness. Consistent with this type of presentation, delete the referral of current and future scenarios, the area has residential units therefore it would be just as reasonable to assume that the residential scenario is "current" and would be expected to be evaluated as such by the community.

2. Section 6.1 Switch probability and magnitude and threatened and actual. Delete "not a medium of concern for human health risk assessment".

3. Section 6.1.1 3rd para. page 6-2. Delete "only, because ingestion of .... land use."

4. ibid. 2nd para. page 6-3. Change "such as, skin rash and vomiting" to "for example...".

5. ibid. 3rd para. page 6-3. Add "excess *lifetime* cancer risk" and delete text in parenthesis.

6. Section 6.1.2 3rd sentence. Delete "the potential exposure to subsurface soils is extremely low and".

7. Section 6.1.2.1 third paragraph. Delete "one case of cancer in a population of 1 million".

8. ibid. last para. page 6-6. Delete "In general, chromium...however".

9. Section 6.1, page 6-4, last paragraph. Define "no significant contamination". Also defend why the potential for exposure to subsurface soil is extremely low at sites SI-50 and SI-77.

10. Section 6.1.2.1, Page 6-7, last paragraph. Please provide a tabular presentation of percentage of the total risk by pathway.

11. Section 6.1.2.2, Page 6-11, third paragraph. State how many samples were analyzed for benzo(a)pyrene and the frequency of detection.

Section 7

1. This chapter does not add much to the report. The only contaminant given any regulatory consideration is TPH as motor oil. Other contaminants were identified in the groundwater but not at levels of concern. It would probably be a good idea to cite or quote EPA's April 13, 1995 letter indicating that an ARARs analysis and FS were not required for Parcel A due to the lack of CERCLA contaminants being present at levels of concern.

Section 8

1. In EPA's April 13, 1995 letter, we stated that the proposed chapter on the Feasibility Study should be deleted since no CERCLA regulated substances were identified in the groundwater at levels of concern. With this guidance in mind, I continue to be confused as to why the Navy elected to conduct an FS for Parcel A groundwater. In addition, in the Proposed Plans for other sites, such as Camp Pendleton, an FS was not required in order to select the preferred alternative of no action. The no action alternative was proposed for Camp Pendleton because the risk assessment concluded that the chemical concentrations present at the site do not pose a significant threat to human or the environment. In other words, conditions at the site are already protective and therefore no action is appropriate. The Navy needs to be more detailed and clear in its explanation of why an FS is required for Parcel A. Please also see EPA's comments on the Parcel A Proposed Plan dated July 27, 1995.

2. All references to the FS criterion "Reduction of toxicity, mobility or volume through treatment" should be written using the proper title. The document often uses an "and" instead of an "or" often leaves off "through treatment."

3. Section 8.2, page 8-1, paragraph 2. Cite reference for statement that motor oil "would alter the taste of water if ingested."

4. p. 8.3, section 8.3.1 - Delete the first two sentences and insert the following: "The threshold criteria for developing remedial alternatives are overall protection of human health and the environment and compliance with ARARs. Because no CERCLA hazardous substances were detected in the groundwater and therefore none will remain on site at the conclusion of the remedial action, the requirement to comply with ARARs is not triggered." Continue with the third sentence as written.

5. p. 8-3, section 8.3 - Change second sentence to the following: "In a letter from EPA Region IX to the Navy dated April 13, 1995, EPA explained that no ARARs identification or FS would be necessary because no CERCLA hazardous substances were

detected in the groundwater above levels of concern (EPA 1995c)."

6. p. 8-4, Compliance with ARARs - rewrite as follows: "The ability of each alternative to meet ARARs, and where appropriate, to-be-considered standards, is assessed.

7. p. 8-5, Regulatory Acceptance - please use State acceptance per the NCP and EPA guidance. Do not use regulatory compliance.

8. p. 8-7, 8.3.2. Overall protection of human health and the environment - this section should mirror the language of the same section in 8.3.2.2.

9. p. 8-7, the limited action alternative needs more detail. Particularly the reasons behind abandoning the wells. How does this further protect human health and the environment?

10. p. 8-8, Implementability - change "will" to "would" on both lines one and two.

11. Not enough information is presented to make a comparative analysis of alternatives. Cost information should be summarized as should other criteria in order for the public to compare the two alternatives. As the plan is worded now, it is difficult to see why alternative 1 is preferable other than it does not cost anything. The Navy should be wary about how the public might view this section as it is worded in this draft.

Section 9

1. Section 9. Revise section to reflect changes made to sections 1 through 8 in response to these comments.

2. Section 9.5, page 9-6, paragraph 2. The direction of groundwater flow was not adequately justified in Section 5. The direction of groundwater flow must be established from potentiometric surface maps based on groundwater elevations from wells screened at similar elevations.

APPENDICES B AND C

1. Define qualifiers at front of Appendix B.

2. Page B-1-10, Table B-1 Analytical Results for Organic/Inorganic Compound in Water Samples. If the aluminum and barium results for sample IR59MW01F were validated, please qualify with an "A" or a "V" to be consistent with the rest of the table.

3. Table B-4: The table is not a clear copy and cannot be read well, also some pages have a white strip through the center and the words that were there were not copied.

4. Page C-35, Table C-12. Summary of Data Qualified Due to Full Validation
The entry for TPH-gas indicates two analyses were qualified J* through only one analysis was performed. Clarify.

5. Page C-5, paragraph 4: Equipment blank contamination indicates inadequate cleaning and decontamination procedures, not "contamination problems from field equipment blanks."

APPENDIX D

1. The discussion is a good general overview of how the physio-chemical properties of the contaminants of concern may affect their mobility and persistence. It would be more valuable if the discussion could be focused to the Hunters Point site by incorporating site specific characteristics such as TOC, flow pathways, etc.

2. Section 4.2.2, Aroclor-1254, page D-21, 1st paragraph: The text should be revised to state "... volatilization is probably not a major factor ...".

APPENDIX E

1. Page E-15. EPA cannot defend the use of the same equation to calculate the concentration of organic chemicals in root vegetables such as carrots and above-ground produce such as watermelons. Chemical concentrations in root vegetables are primarily dependant on root uptake, whereas concentrations in above-ground produce depends on both root uptake and translocation to edible tissues. The equation presented by Travis and Arms takes into account both root uptake and translocation, and therefore likely underestimates the concentration which would be present in root vegetables. Briggs, et.al. ("Relationship Between Lipophilicity and Root Uptake, and Translocation of Nonionized Chemicals by Barley." Pesticide Science, 13:495, 1982) is a source which can be consulted to obtain an appropriate equation for determining organic chemical concentrations in root vegetables. The approach presented by Briggs, et.al., is also consistent with a draft document published by EPA last year describing how to calculate vegetable concentrations of dioxins/furans. If root vegetables are an important crop in the area, EPCs should be recalculated based on an equation for estimating concentrations in root vegetables. Ingestion of root vegetables would likely provide the most conservative estimate of contaminant intake through produce ingestion.

2. Page E-41, second paragraph. Explain why the EPC for benzo(a)pyrene is probably less than 0.27 mg/kg (i.e., was the maximum concentration used as the EPC?).

3. Page E-41, third paragraph. Explain why the EPC for dibenz(a,h)anthracene is probably less than 0.2 mg/kg (i.e., was the maximum concentration used as the EPC?).

4. Page E-44, second paragraph. Reconcile inconsistency in HI for ingestion (e.g. 100 vs. 110).

5. Page E-45, second paragraph. Explain how the estimates of HQs were derived under central tendency conditions. Show exposure parameters used.

APPENDIX H

1. Section 2.1, page 3, paragraph 3. Describe the rationale used to exclude outlier's. Typically, outlier's are excluded only with justification (e.g., rejected laboratory data) indicating that the value(s) may be erroneous. Data not known to be in error are considered valid because (1) the distribution may be skewed, (2) the statistical procedures used in many background calculations are less sensitive to extremely low concentrations than to extremely high concentrations, and (3) high concentrations are of particular concern for potential human health and environmental impacts.

2. Section 2.1, page 3, paragraph 3. Clarify whether the distributions were evaluated to ensure that they approximated a normal distribution. Calculation of a confidence interval for the regression line precludes the use of distributions other than a normal distribution. In the text it states that the data were logarithmically transformed.

3. Section 2.2, page 4, paragraph 2. Indicate the rationale for the exclusion of outliers from the data set (see above comment). Also, indicate which metal(s) had outliers excluded from the data set.

4. Section 2.2, page 4, paragraph 3. Define "significant nondetect population" in terms of quantity and magnitude of the nondetect population.

5. Section 2.2, page 4, paragraph 4. Consider evaluating a number of statistical methods (e.g., 90th percentile) before ambient concentrations are selected. The use of the 95 percent UCL for the 95th percentile of each background population results in a bias toward higher concentrations for the ambient levels.

6. Table 7. Include units in this table. Also, the antimony, cadmium, copper, mercury, silver, and vanadium concentrations

are elevated. In particular, copper appears to be quite high (i.e., 124.31 ppm) for an ambient level. Indicate the likely cause(s) for the unusually high ambient level for copper and the elevated levels for the other metals.

7. Table 14. Indicate how the presence of nondetects were treated in the statistical analysis. For example, were data sets with 97 percent nondetects treated the same as data sets with only 0.03 nondetect

Should you have any questions about these comments, please do not hesitate to contact me at (415) 744-2409.

Sincerely,

Claire Trombadore

Claire Trombadore
Remedial Project Manager

cc: Gavin McCabe, EPA
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