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

May 6, 1996

Richard Powell
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Engineering Field Activities West
900 Commodore Drive, Building B102
San Bruno, CA 94066-2402

Re: Draft Engineering Evaluation/Cost Analysis - Storm Drain System, Hunters Point Annex

Dear Mr. Powell:

EPA has reviewed the above referenced document prepared by PRC Environmental Management, Inc. and submitted on April 5, 1996, and has the following comments:

General Comments:

1. The use of "selection levels" as screening criteria for specified metals is unacceptable. There has been no discussion regarding the designation and use of such levels between members of the BCT. The EE/CA contains no justification or explanation of methods used to calculate the levels which are sometimes 300 to 400 times the screening criteria in Table 6. The agencies and the Navy must first come to an agreement on the appropriateness of the need to determine such selection levels and on a method to calculate the levels, and then all decisions and agreements should be fully explained in the EE/CA.

2. Since **all** reaches of the storm drain system have been screened out for metals in this EE/CA by using the selection levels discussed above, these reaches will probably need to be re-evaluated after mutually agreed upon screening levels for metals are determined.

3. The document as it stands uses only PCBs as the trigger for monitoring groundwater infiltration into storm drains, and then in only one reach (although PCBs were detected in two reaches - see Specific Comment #35), and as such barely supports the need for a removal action related to groundwater contamination. Since organics (TCE, DCE) were detected above Bay and Estuary screening criteria, it would be useful to sample and analyze for these constituents in addition to metals, pesticides and PCBs.

4. Much discussion is presented on whether the soil and sediments in the catch basins are considered solid waste, and possibly hazardous waste, and which ARARs should and should not apply. Because the materials in the storm drains are going to be removed and disposed of, they are classified as solid waste. In order to be treated and/or disposed of, it will be necessary to characterize this waste, at which point it can be determined whether it is or is not characteristically hazardous. Therefore, much of the text (see Specific Comments #15, #24, and #27 below) can be deleted, making the document more succinct.

5. The confusion that exists over the purpose of screening criteria is reflected throughout the EE/CA. Screening levels are used to indicate which contaminants present a concern and a possible risk to receptors. The goal of the removal action is not to prevent **all** contaminants above screening levels from reaching the Bay. Contaminants of concern will be considered on a case by case basis and some will need to be prevented from getting to the Bay. Removal actions are designed to be in line with the final remedy chosen for a site, and as such should look at all possible contaminants for screening purposes to obviate the need to go back at a later date and redo work that has could easily have been performed under the removal action.

6. The document states that when considering the off-site disposal alternative, LDRs for metals may require stabilization. The unit disposal cost does not reflect this possibility. Please discuss the likelihood of the need for stabilization. The estimated unit cost for stabilization would allow a more accurate comparison of alternatives.

7. The method used for comparative analysis of remedial alternatives (see Table 8, pg 75) contains eight separate categories ranked on a scale of 1 to 5. Please explain whether each of the eight categories have equal importance in evaluating the remedial alternatives.

   The rankings in some of the categories are more subjective than others. Placing a numerical score can be difficult and inexact. The final rankings showed the two top scores within one point. Please discuss the advantages and disadvantages of relying on this system.

8. This document does not adequately address the organic contaminants in the sediments that have LDRs. The alternatives address only metal contaminants which leads to landfilling as the best technology. The organic LDRs must be addressed; this may lead to other technologies being selected for those sediments with LDR chemicals.

Specific Comments:

1. **Executive Summary, pg ES-3, paragraph 32:** Please define "reasonably low cost"

2. **Executive Summary, pg ES-3, last paragraph:** Where will the liquid portion of the accumulated sediment slurry be disposed, and what plans are there for characterization prior to disposal.

3. **Section 1, pg 1, first paragraph:** Please update to reflect current status of groundwater removal actions for Parcel E and delete the mention of Parcels B and C.

4. **Section 1, pg 1 paragraph 3:** In addition to the two pathways identified, there is another pathway which consists of the potential for the bedding material for the pipeline to act as a conduit for contaminated groundwater to follow. This path would channel contaminated groundwater to the Bay. To determine whether this pathway exists, the construction of the pipeline should be reviewed.

5. **Section 2.3.5, pg 10:** Please discuss the soil types that surround the storm drains. For instance, discuss whether these drains are buried in native soil or whether they are in the fill zone.

6. **Section 2.4.1, pg 12, paragraph 1, first sentence:** "by one estimate approximately 107,000 linear feet of storm drain line". Please clarify whether HLA 1994 is the source of this estimate. Other estimates should also be provided, since the statement implies that there are other estimates. Why was this particular one chosen?

   Two conflicting estimates of the numbers of catch basins are given. Which one is correct and why?

7. **Section 2.5, pg 15, last paragraph:** This assumption should be clarified to include the fact that offsite disposal also depends upon the type of contamination. The fact that small amounts of soil from other projects was disposed offsite does not necessarily mean that this action is appropriate or even applicable for the storm drains.

8. **Table 1** is difficult to read because the difference between the bold and non-bold typeface is almost indistinguishable.

9. **Table 3, pg 29-33 and Section 3.3.2, pg 45:** The infiltration (exfiltration) rates vary dramatically. Please discuss the accuracy of this data and the significance of the variations.

10. **Table 3:** What level determines negligible?

11. **Table 3:** The footnotes state that salinity levels for the Bay around the base vary from 11.2 to 12.5 percent. We understand that to mean equal to 112,000 to 125,000 ppm salinity. Isn't this range unusually high for seawater?

12. **Table 4, pg 36-37:** The column headers include LER-L and LER-M. Please define these abbreviations in the footnotes.

13. **Section 3.3.2, pg 45, 4th paragraph:** TCE is not tetrachloroethene.

14. **Table 6** shows the screening criteria for DCE to be 224,000µg/l, not 129µg/l as indicated in this paragraph. Please resolve this discrepancy.

15. **Section 3.3.1, pg 38:** Why is it necessary to further evaluate sediments in the EE/CA if they are going to be removed and disposed?

16. **Section 3.3.2, pg 38:** Where does the discussion of screening against Enclosed Bay and Estuary Plan criteria take place in this document?

    Screening criteria **only** serve the purpose of determining which contaminants pose a potential threat to the environment. They are not taken as clean-up standards, and do not have to result in a removal action.

17. **Section 3.3.2, pg 46, first paragraph:** Activities such as groundwater/tidal influence modeling or tracer tests are needed to support the anticipation that contaminant concentrations at the outfall are significantly less than at the manholes.

18. **Section 3.3.2, page 46, paragraph 4:** The justification provided for excluding nickel, copper, and mercury from further consideration is inadequate. It is premature to dismiss these metals until concentrations of these metals in background groundwater have been established.

19. **Section 3.3.2, pg 46, paragraph 5:** The areas of concern must be reevaluated after the screening level issues are resolved.

20. **Section 4.1, pg 47, paragraph 3:** Statements such as "unless strong evidence indicates inorganic compounds are related to activities conducted at HPA, inorganic compounds are not considered as part of this removal action" should be deleted from this document. Once a method of establishing background groundwater concentrations of metals has been agreed to, any necessary remedial action will have to be assessed.

21. **Table 7:** The ARARs are incomplete. Since PCBs are present, TSCA should be referenced. No ARARs for maintaining the water quality and ecological integrity of San Francisco Bay have been included, such as the Coastal Zone Management Act.

22. **Section 4.2, first and second bullet:** These bullets demonstrate the confusion that exists over the purpose of screening criteria (see General Comment #5). The goal or objective of the removal action is not to prevent **all** contaminants above screening levels from reaching the Bay. The first bullet is not only based on an incorrect premise, but is misleading, because prior to implementation of the proposed monitoring program for the storm drain reaches, it is not yet known whether groundwater contains contaminants above screening levels, and there have been no measures yet proposed to prevent the groundwater from reaching the Bay through the storm drains.

23. **Section 4.3.2., pg 48, last paragraph:** The background information and discussion in this paragraph is not relevant to the understanding and support of alternatives presented in the EE/CA, and is inappropriate for inclusion in this document. Please delete the paragraph.

24. **Section 4.3.2.3, pg 52, first paragraph:** Much of the discussion in this paragraph does not seem necessary, especially in view of the chosen alternative which recommends off-site disposal of the sediments. See General Comment #4 above.

25. **Section 4.3.2.3, pg 52, second paragraph:** Dilution of the TTLC leachate by a factor of 10 will not necessarily give the same result as the multiplication of the STLC number by the same factor. Provide justification, in the form of either regulatory agreement of such a precedent or a guidance document, for using this approach. What is the justification for needing 10% of the samples to exceed the designated trigger level (10 X STLC) in order to consider the waste hazardous?

26. **Section 4.3.2.3, pg 53, second and third paragraphs:** Why are "remedial activities" referenced in this removal action document?

    The CAMU ARARs may present some difficulties. Since this alternative was not the recommended one, EPA will not comment extensively on this approach. However, it will be subjected to much greater scrutiny should it be decided that Alternative 3 is the preferred option.

27. **Section 4.3.2.3, pg 54, third, fourth and fifth paragraphs:** The sediment is going to be removed from the catch basins for disposal purposes is therefore defined as being a solid

waste. Sampling and analysis in accordance with RCRA Subtitle C and SWRCB regulations will be able to determine whether the waste is hazardous. (See general comment # 4)

28. **Section 5.1, pg 55, second paragraph:** How will the pressure washing of the lines be accomplished to ensure that no additional sediment or waste water is washed out to the Bay? Does ensuring complete capture of the sediments and water increase costs and has this aspect been factored into the costs of removing sediments and cleaning the drain lines?

29. **Section 5.1, pg 55, last paragraph:** Please explain how characterization will be accelerated and how the accelerated practice differs from standard practice.

30. **Section 5.2.1, pg 56, paragraph 2:** This section implies that metals are the only problem, which is incorrect. On page 46, it is stated that the presence of PCBs in reaches TB25-TB32 and TB32-TB18 will be addressed in this EE/CA. There are several listed organic contaminants in the sediments such as TCE that don't exceed ER-Ls but still may exceed LDRs and be prohibited from land disposal. This condition must be evaluated for all sediments before off site disposal is selected. TCE, for instance, exceeds LDR standards in 40 CFR 268.43 and cannot be land disposed.

31. Section 5.3.1, pg 60: This section should include a discussion of LDRs for organic constituents which also exceed criteria. Treatment for these compounds is not generally performed at the disposal facility and would preclude this type of disposal.

32. **Section 5.3.1.1, pg 61, paragraph 2:** Sediments that are characteristic wastes should be sent off site unless the Navy is planning on constructing a RCRA TSD onsite. The 2nd paragraph of section 5.3.1 also says hazardous sediments will be sent off site for disposal. This section should be rewritten to be consistent.

33. **Section 5.3.1.3, pg 61:** Organic LDR wastes are not treated at landfills. The costs for this technology will be higher due to the presence of organics.

34. **Section 5.3.2.1, pg 62, first paragraph:** Under this alternative sediment from the storm drains is disposed of in the landfill in Parcel E (IR-1/21) which is currently being recommended for a removal action. The Parcel E EE/CA and the recommended alternative for a removal action does not mention or address the consequences of disposing of storm drain sediment in IR-1/21. The removal action for Parcel E is based on the contaminants currently present in the landfill and is designed to be compatible with the final remedy for this site. Should the on-site landfill

disposal/management alternative be chosen for the storm drain removal action, what measures will be taken to ensure that the presence of additional contaminants in the landfill will be addressed in the RI/FS? Has most of the field sampling for the RI been already completed and if so, when will additional sampling be undertaken to assess the additional contamination?

35. **Section 6.2.1, pg 71:** Please justify monitoring only reach TB25 to TB32 for PCBs. PCBs were also present in reach TB18 to TB32 (see pg 46)

36. **Section 6.2.1.1, pg 71:** Monitoring does not protect the environment unless no contaminants are found. In any event, regardless of whether contamination is found or not, nothing will be done during the monitoring period. Therefore, overall protection may not be provided in the short term.

37. **Section 7 and 8:** These alternatives should be reconsidered and reevaluated in light of the fact that there are land banned wastes present in the sediments. TCE and other compounds appear to exceed LDRs and would prevent the sediment from being disposed in a landfill.

APPENDIX B

1. Table. No footnotes were provided to describe abbreviations and symbols.

APPENDIX C.

1. Alternative 1. Please explain why heavy duty line cleansing is presented in cubic yards in the alternative when the units in Alternative 2 for this task are presented in cubic feet.

   The lease cost of $270,000 to lease 10 rolloffs for 9 months seems high. This is similar to the costs for leasing a motorized piece of equipment such as an excavator, loader, etc.

2. All Alternatives: Please justify why video monitoring is only needed for 340 feet of storm drain. This justification should include a description of where video monitoring is planned.

3. Alternative 3: The labor estimate for installing a monitor well is presented in units and not hours. Why is the labor estimate in units?

4. Although the cost estimates in Appendix C were generally well prepared, more details would allow for a better

evaluation of the accuracy. Most of these costs appeared to be presented as a task unit cost or lump sum. The labor rates for sample collection and project management were difficult to evaluate without additional information.

If you have any questions or comments, please call me at (415) 744-2389.

Sincerely,

Anna-Marie Cook

Anna-Marie Cook
Remedial Project Manager

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