



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IX

75 Hawthorne Street  
San Francisco, CA 94105-3901

May 14, 1997

Mr. Richard Powell  
Mail Code 1832  
Engineering Field Activities West  
900 Commodore Drive  
San Bruno, CA 94066-2402

**SUBJECT: PARCEL C FEASIBILITY STUDY DRAFT REPORT, HUNTERS POINT  
NAVAL SHIPYARD**

Dear Mr. Powell:

The Environmental Protection Agency has completed review of the subject document. There are several issues that will require discussion among the BCT because it appears that Agency input and agreements that have been reached for Parcels B and D have not been incorporated into the document. We suggest that the Navy meet with the Agencies as soon as possible and re-draft this document rather than submit a draft final document. This will also allow the Navy to incorporate IR-25 into a draft document. We have discussed this with the other regulatory agencies and feel that this is the best approach to ensure that the contamination within Parcel C will be adequately remediated to protect human health and the environment.

We are providing our general comments at this time to assist the Navy in understanding what we consider to be the larger issues that will require resolution. We are not providing our specific comments at this time because we believe that the alternatives and/or the remediation areas may change as a result of discussions among the BCT. Once the larger issues are resolved, we will provide our specific comments if they are still applicable. Please contact myself, Chein and Rich as soon as possible to set up a meeting to discuss this document and the revision that will be required.

Sincerely,

A handwritten signature in cursive script that reads "Sheryl Lauth".

Sheryl Lauth  
Remedial Project Manager

cc: Mr. Chein Kao, DTSC  
Mr. Rich Hiett, RWQCB  
Mr. Jim Sickles, PRC  
Ms. Glenna Clark, Navy  
Ms. Karla Braesemle, Weston  
Ms. Vicky Lang, EPA ORC

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**THE ENVIRONMENTAL PROTECTION AGENCY GENERAL COMMENTS**  
**PARCEL C DRAFT FEASIBILITY STUDY REPORT**  
(Specific Comments are not included at this time)

**GENERAL COMMENTS**

1. The use of a dilution factor may not be appropriate for Parcel C given the location of the tidally influenced zone. However, if agreement is reached regarding the use of DAFs then the Navy must incorporate the language that is being developed in the Parcel B ROD when there are hits in the sentry wells indicating that the HGAL-adjusted criteria at the tidally influenced zone or indicate increasing concentrations of COCs at any of the RUs. This language should be included in the FS and Proposed Plan to ensure that the public is involved in the review process. As it stands now, it appears that the Navy is somehow going to propose a contingent remedy in the "contingency plan" it wants to develop at the RA stage. We believe that the RA stage may be too late for this proposal, and the contingent remedy should be stated in detail in the FS given that this document is still in the development and review process, or at the latest the ROD.
2. The modeling of groundwater concentrations to determine the potential for vinyl chloride gas does not take into account the potential for future generation of gas from the TCE and does not use the highest concentrations of VOC detected (the detected concentrations of these compounds in grab groundwater samples as representative of a possible worst-case scenario). Further, as we have suggested previously, soil gas data should be collected to determine what concentration is actually present in the vapor phase as was discussed for Parcels B and D. It is also unclear if the target cleanup level for vinyl chloride was calculated for residential exposure when the reuse is industrial.
3. This document fails to adequately address the TCE and 1,2-DCE detected in the A aquifer that are expected to degrade to Vinyl Chloride in the future. This is particularly important given that the plumes are co-mingled with hydrocarbons that are thought to enhance the breakdown of chlorinated compounds.
4. This document fails to address the co-mingled hydrocarbon and chlorinated plumes.
5. There are exceedences of the HGAL or NAWQC for copper, Mercury, Zinc and Chromium that should be included as potential remediation areas. There appear to be discrepancies between the concentrations of COCs found onsite and the determination of whether the IR site needs to undergo

remediation. The cleanup goals in Tables 3-1 and 3-2 a, b, and c need to be reviewed against the concentrations listed in Table 2-5. There are IR sites that have relatively high concentrations that are not identified for remediation.

- **Table 3-10, Scenario 1.** Site IR-49 is not indicated as needing cleanup. However, Table 2-5 shows high concentrations of copper (8,390 mg/kg), lead (1,230 mg/kg), mercury (135 mg/kg) and TPH (210,000 mg/kg). This site should be included in the list for site cleanup. Site IR-51 has TPH at 180,000 mg/kg. Site IR-57 shows no cleanup required under Scenario 1 yet it has TPH at 9,690 mg/kg. It appears that these sites need to be included in the Scenario 1 cleanup list. If the contaminated areas have been included in other sites, this should be indicated in the table.
  - **Table 3-10, Scenario 2.** Site IR-49 is not included as needing cleanup yet Table 2-5 shows benzo-a-anthracene concentrations (7.7 mg/kg) exceeding Table 3-2b cleanup levels. Site IR-49 also has high levels of TPH (210,000 mg/kg). Benzo-a-pyrene also exceeds cleanup levels at Site IR-49. Site IR-51 has high levels of TPH (180,000 mg/kg). These sites should be included for remediation under Scenario 2. If the contaminated areas have been included in other sites, this should be indicated in the table.
  - **Table 3-10, Scenario 3.** All sites where detected concentrations exceed cleanup levels should be included in the table.
6. The TCE and vinyl chloride detected in the A aquifer in the remedial unit 4 must also be addressed. The vinyl chloride in the area is detected above the proposed cleanup level yet it is not included.
  7. The Navy told the agencies at the last meeting that a CAMU or TU was not going to be used at Hunters Point. Yet, this is not consistent with what is included in the document. The Navy needs to clarify this and specifically state how the waste will be handled while it is on-site to ensure compliance with Land Disposal Requirements (LDR) and RCRA storage requirements. LDRs do not just apply to the "disposal" of contaminated soils and other wastes, but to any placement on the land of restricted wastes (including stockpiling). If the Navy is not designating a CAMU or stockpiling the soil in each particular area of contamination, then the Navy will be in violation of LDRs (for soils exceeding LDR standards) if it chooses to place the soil on the land. In addition, for purposes of LDR determination the soils must be analyzed at the "point of generation", that is where it is dug up, and not after the soil has been stockpiled unless the waste piles are segregated and sufficient data has been collected while the soil is in place. This applies to all the remedial options

involving stockpiling of soils and should be addressed throughout the document under each relevant alternative.

If the Navy is going to go ahead with the Parcel C FS and include the CAMU concept, then the FS should include an analysis of how the Navy will meet the seven factors, set forth in 22 CCR section 66264.552(c), with regard to the CAMU. At the most recent BCT meeting it was clarified that a CAMU will not be used therefore, it is extremely important the Navy ensure that waste characterization for off-site disposal applies with all ARARs.

8. The groundwater alternative 2 that includes soil excavation of VOC contaminated soil may not be acceptable due to venting of VOCs which could lead to air violations and unacceptable exposures to current tenants. Further, based on the concentrations detected, the soil may have to be incinerated which could significantly increase cost. Lastly, Alternative GW-2 does not address contamination in RU-2 and therefore is not protective of human health and the environment at RU-2.
9. Several of the soil remediation areas and *de minimus* areas are located within or near the groundwater remedial units. It is possible that excavation of vadose zone soil will either create a preferred pathway or allow direct emission of VOCs (e.g., vinyl chloride) from groundwater. These emissions may exceed allowable BAAQMD emission levels, but this possibility is not addressed in the FS. This may affect compliance with ARARs and result in increased cost if it is necessary to control VOC emissions from excavations.
10. The EPA-approved technologies for remediation of soil containing PCBs include thermal destruction, dechlorination, and landfilling. Microencapsulation may also be acceptable. Please note that cement-based or pozzolanic S/S processes will not meet the requirement to immobilize or destroy PCBs because these processes do not bind the PCBs chemically.
11. Additional clarification of the screening process in Section 2 including the purpose for the screening and the values for the criteria used is needed. It does not appear that soil concentrations were screened to determine if there were COCs in concentrations that could leach into groundwater and impact the Bay. Further, it does not appear that soil concentrations near the bay interface or storm drain outfalls were evaluated to determine if soil could impact the bay. Please discuss how soil leachability and the potential for discharge through the storm drains will be addressed.
12. It is stated that a chemical in groundwater was excluded from further consideration if a screening criterion was exceeded in only one sample. More information is needed to justify eliminating chemicals on this basis. It is possible that valid detections from wells that were only sampled once were

excluded. Please identify the chemicals that were excluded where a well was not sampled at least three times.

13. Please describe the elevation of the storm drain system with respect to the water table. Discuss if it is possible that contaminated groundwater was leaking into the storm drain if the elevation of part of the system is below the groundwater table. The text in Section 2.6.1 suggests that portions of the storm drain system in Parcel C are below the groundwater table; this is a site characteristic that should be discussed in this subsection.
14. The FS should include process options that can be included in the ROD. Once the ROD is written, selecting a different technology is very cumbersome. For this reason, treatability testing is supposed to occur during the FS phase so that selection of a technology can be justified. Please see Chapter 5 and p. 6-1 of the "Guidance for Conducting Remedial Investigations and Feasibility Studies under CERCLA" for information about the timing of treatability studies.

It is not clear what is meant by the statement that "... the actual process option used to implement the remedial action will not be definitely chosen until the design phase..." Please clarify.

15. The excavation of the soils associated with the storm drain removal must be tested to see if qualify as land disposal restricted wastes, and if so treat accordingly. Also if the steam line system itself contains hazardous substances, then the rinsing of the pipes must be done appropriately. Further, if the piping is contaminated it should not be sold as scrap metal or if disposed off-site, the piping must be disposed of at a proper facility.