



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

January 8, 1998

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

SUBJECT: ECOLOGICAL PORTION OF THE DRAFT FINAL PARCEL E REMEDIAL INVESTIGATION REPORT, HUNTERS POINT NAVAL SHIPYARD

Dear Mr. Powell:

To supplement the comments submitted previously by the Environmental Protection Agency (EPA), we have some additional comments regarding the ecological components of the report. Please include these comments in your responses and as suggested at the last meeting, the team should get together as soon as possible to discuss the overall strategy for addressing the ecological risk at Parcel E. If you have any questions regarding these comments, please call me at (415) 744-2387.

Sincerely,

A handwritten signature in cursive script, appearing to read "Sheryl Lauth".

Sheryl Lauth
Remedial Project Manager

cc: Mr. Chein Kao, DTSC
Mr. David Leland, RWQCB
Mr. Jim Sickles, Tetra Tech EMI
Ms. Luann Tetirick, Navy
Ms. Karla Braesemle, Weston

COMMENTS REGARDING THE ECOLOGICAL PORTION OF THE DRAFT FINAL
REMEDIAL INVESTIGATION REPORT FOR PARCEL E

1. Generally, the Navy seems to agree with the Agencies that further risk assessment work is needed and EPA would certainly agree with that position.

Comment 1a: The "10 percent" rule. We have read the response to DTSC, HERD that was referenced in the Navy's response. Please elaborate/explain what is meant by the first complete sentence on S-1446, "The spatial distribution of the chemical was factored into the reevaluation although that was not explicitly stated." Please clarify this statement with reference to the "10 percent criterion."

Comment 1b: PCB analysis. Please cite the volume and page number for the analytical results of the Aroclor-1254 and 1260. We would like to see the laboratory results for the levels of these two Aroclor concentrations. We want to view the analytical peaks from the sample and the peaks for the standards to understand how the two Aroclors were identified and separated from other contaminants.

Comment 1c: Herbicides. The comment does not address the possibility that the contaminants may have been above a significant risk level, even at frequencies of detection less than 10 percent. Please provide contaminant concentrations where these contaminants were detected above detection limits.

2. Comment 2a: Invertebrates as receptors. EPA is in support of the Navy position as expressed on p S-94, "The Navy, however, ... the basic conclusion of the study, that all Parcel E sites evaluated have concentrations of COPECS in soil that represent a potential terrestrial ecological risk." Having made this statement, the Navy must recognize that the RI/FS process now requires that a cleanup concentration must be determined. EPA accepts the Navy offer as expressed in the first sentence, second paragraph on pS-94 "...to identify an appropriate strategy for addressing this potential risk and expects to include any additional field work in the data gap sampling and analysis activities for Parcel E." We would suggest that discussions for validation studies be initiated immediately for Parcel E so as to avoid any further delay in cleanup of this Parcel.

Comment 2b: Exposure. The response is not sufficient as it only refers the reader to a discussion of uncertainties when EPA is suggesting (perhaps not as directly as required) that validation studies be planned to reduce the great amount of possible range in the uncertainties (either from data variance or from unknown levels) produced by the approach described by the Navy.

Comment 2c: Bio-transfer factors. This is another area where EPA strongly suggests that validation samples would eliminate the great amount of uncertainty in the data resulting in an inability to produce definitive results in the ERA.

Comment 2d: Trophic transfer factors. The use of literature values for estimating trophic transfer factors is not reasonable given the potential range of results possible due to site specific characteristics (i.e., edaphic and species specific conditions) compared to the definitive results that are possible from sampling the material at Hunters Point to obtain the most relevant data. EPA strongly suggests that the trophic transfer factor data be validated.

3. Comment 3a: Interpretation of TRVs. The response provided is inadequate as it does not address the EPA comment. The TRV document was not raised as an issue of being a completed document (i.e., reviewed), but is cited here as an issue of interpretation of the values especially on the low end of the values. The risk derived using the low TRV is a "low risk" estimate, not a "no risk" estimate. If a "no risk" level is desired, EPA suggests that the Navy follow the DTSC document (as well as the EPA Superfund guidance and the Risk Forum guidelines) to develop an exposure-response relationship. The Navy must be able to discuss the points listed in the risk characterization phase of the EPA Risk Forum document as listed below (see comment 4a).

Comment 3b: Use of hazard quotients. What is the Navy suggesting as a solution to the problem that the Navy has shown as a likely significant ecological risk? What is the next step in the Navy's opinion? EPA is suggesting that validation studies be performed for Parcel E.

4. Comment 4a: Risk Characterization. Although the Navy states that this "...ERA primarily incorporated guidance from the Framework" (see page S-95, response to EPA general comment no. 3), the Navy contradicts itself when stating that, "...risk management decisions may be made without full knowledge of all of these parameters." "These parameters" as referred to here are the components of risk characterization as defined not only in the Tri-services document but also in the Framework document. Knowledge of these four items are necessary rather than just helpful. For instance, the Forum document provides explicit definitions of what is needed, "Managers should clearly describe the sources and causes of risks and the potential adversity of the risks (e.g., nature and intensity, spatial and temporal scale, and recovery potential.)" Further, from p113, Text Box 6-1, Questions Regarding Risk Assessment Results (Adapted From U.S. EPA, 1993d);

Questions principally for risk assessors to ask risk managers:

- Are the risks sufficiently well defined (and data gaps small enough) to support a risk management decision?
- Was the right problem analyzed?
- Was the problem adequately characterized?

Questions principally for risk managers to ask risk assessors:

- What effects might occur?
- How adverse are the effects?
- How likely is it that effects will occur?
- When and where do the effects occur?
- How confident are you in the conclusions of the risk assessment?
- What are the critical data gaps, and will information be available in the near future to fill these gaps?
- Are more ecological risk assessment iterations required?
- How could monitoring help evaluate the results of the risk management decision?

The Navy has stopped the ERA process at a screening level for Hunters Point. Management decisions are best made with all the required information obtained in the completed ERA process, rather than trying to defend a management decision arrived at by guessing based on incomplete data and assumptions that cannot be supported.

The Agencies have not agreed that Category 2 is a rational interpretation of the data. The Agencies do recognize that any site with risk determined to be above the risk derived from the low TRV and below the high TRV need to be further evaluated.

Comment 4b: Limited receptors for risk characterization. With respect to the response cited by the Navy (reference to EPA Appendix F specific response number 7), the question of the kestrel and small mammals being adequate is a moot point. The Navy acknowledges the importance of evaluating risk to soil invertebrates and plants at Parcel E (page S-97) and the Navy has acknowledged that, "... the basic conclusion of the study, that all Parcel E sites evaluated have concentrations of COPECs in soil that represent a potential terrestrial ecological risk." EPA suggests that the next step is to validate these conclusions.

Comment 4c: Classification of sites and cleanup levels. EPA agrees with the Navy that the next step in the process is the need for cleanup numbers based on site specific validation studies.

Comment 4d: Category 2 sites and cleanup values. What was the purpose of the work presented if not to complete the ecological risk assessment?