



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 9  
75 Hawthorne Street  
San Francisco CA 94105-3901  
April 27, 2000

N00217.000264  
HUNTERS POINT  
SSIC NO. 5090.3

**MEMORANDUM**

**SUBJECT:** Draft Final Validation Study Report Parcel E, Hunters Point Shipyard San Francisco, California

**FROM:** Clarence A. Callahan, Ph.D., Biologist  
BTAG Co-Coordinator  
Technical Support Team (SFD-8-B)

A handwritten signature in black ink, appearing to read "C. Callahan".

**TO:** Sheryl Lauth, Remedial Project Manager  
Navy Section (SFD-8-2)

**General Comments:** The Navy and their support contractors have in general responded adequately to my previous comments (7/22/99 memo) as reported in the Appendix B of this document. For this portion of the Hunters Point project, the Navy and their support contractors have been very responsive to EPA's concerns and suggestions for estimating the potential risk to receptors at Parcel E, Hunters Point.

**Specific Comments:** EPA has worked with the Navy and their contractors to develop the approach used in this document to arrive at a better estimate of the exposure to the site receptors. EPA commends the Navy for their effort to achieve a more logical and representative estimate of exposure to the site receptors.

While the Navy has been very responsive in collecting site specific information for this validation effort to estimate a more logical and reasonable exposure of the site receptors to the contaminants, there is a great amount of remaining uncertainty because of unknown life history data. While the responsibility for collecting these data lies with the Navy, EPA recognizes that these data are not easily obtainable and sometimes not available. This is a shortcoming of this site work in particular and in ecological risk assessment in general. If the Navy and their contractors can be faulted for anything with this effort, it is the lack of searching for more data concerned with the specific habits of the site receptors. This includes feeding

areas (home range) and time spent on the site (site use factor) by the particular receptors and specific food items on the site. This information is more difficult to come by, but it may be available from alternate sources. This kind of search is not evident from the material presented.

Overall, the document is better than we normally see from many of the sites, particularly terrestrial sites in Region 9. The “ecologically protective soil concentrations” as presented by the Navy seem to be acceptable because they were derived using site specific data and conditions directly related to the site.

There are a couple of my previous comments that were not addressed adequately. Perhaps, the Navy could try again.

An alternative to that presented in this document is to present a range of exposure estimates for each receptor. For instance, the site use factor for the kestrel is estimated to be 0.99 (p10-5) based on literature. The site use factor might be varied from the lowest observed in this area (search for reports from amateur birders) or identify low numbers for similar sites from the literature to the highest value suggested, 0.99. The percentages of food items consumed for the kestrel are estimated to be 36.2 (invertebrates), 23.7 (reptiles) and 27.6 (mammals) from the literature (p10-4). For site specific estimates, if ratios of animal biomass cannot be estimated from the samples collected, then a randomization process (i.e., bootstrapping) for assigning various percentages to the kestrel might be used to estimate proportions of intake and loadings of contaminants (i.e., concentration in tissue multiplied by the biomass) such that the risk is shown as a range. This calculated range is then used to characterize the estimated risk presented by the site specific situations rather than the literature based information.

EPA would like to know the source of the document, "Research Triangle Institute. 1995. Development of Human Health Based and Ecologically Based Exit Criteria for the Hazardous Waste Identification Project. Volume I. Review Draft March 3." Is this in fact a RCRA document that is now available on a web site?

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