



Department of Toxic Substances Control

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HUNTERS POINT
SSIC NO. 5090.3



Winston H. Hickox
Agency Secretary
California Environmental
Protection Agency

Edwin F. Lowry, Director
700 Heinz Avenue, Suite 200
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Governor

March 20, 2001

Commanding Officer
Department of the Navy
Naval Facilities Engineering Command
Southwest Division
1220 Pacific Highway
San Diego, CA 92132-5190
Attention: Richard Mach

DRAFT HUNTERS POINT SHIPYARD (PARCEL F) HUMAN HEALTH
EVALUATION WORK PLAN, HUNTERS POINT SHIPYARD, SAN
FRANCISCO, CALIFORNIA

Dear Mr. Mach:

California Department of Toxic Substances Control has completed the review of the above-mentioned document. Our comments are attached to this letter.

If you have any questions, Please contact me at (510) 540-3822.

Sincerely,

Chein Ping Kao, P.E.
Senior Hazardous Substance Engineer
Office of Military Facilities

Enclosure

CC: Ms. Claire Trombadore
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San Francisco, California 94105-3901

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MEMORANDUM

TO: Chein Kao, Project Manager
Site Mitigation Branch, Berkeley Office
700 Heinz, Second Floor, Building F
Berkeley, CA 94704

FROM: James M. Polisini, Ph.D.
Human and Ecological Risk Division (HERD) 

DATE: March 16, 2001

SUBJECT: DRAFT HUNTERS POINT SHIPYARD (PARCEL F) HUMAN
HEALTH EVALUATION WORK PLAN
[PCA 14740, SITE 200050-47 H:20]

Background

We have reviewed the document titled *Draft Hunters Point Shipyard (Parcel F) Human Health Evaluation Work Plan*, dated January 12, 2001. This work plan was prepared by Batelle, of Duxbury, Massachusetts, Entrix, Inc. of Walnut Creek, California and Neptune & Company of Los Alamos, New Mexico. This review is in response to your written work request.

Hunters Point Shipyard (HPS) is situated on a promontory in the southwestern portion of San Francisco Bay. HPS is bounded on the north and east by San Francisco Bay and on the south and west by the Bayview Hunters Point district of San Francisco. The area within the property boundaries is approximately 955 acres of which approximately 400 acres are offshore sediments.

General Comments

HERD recommends the forward calculation of risk and hazard as opposed to the back calculation of a 'safe' media concentration such as the Risk-Based Screening Concentrations (RBSCs) presented in this work plan. RBSCs are more useful in the Feasibility Study (FS) or an Engineering Evaluation/Cost

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Assessment (EE/CA). Please provide some discussion regarding the benefits of using the back calculated RBSCs in the Remedial Investigation (RI) phase of the Parcel F work.

Specific Comments

1. An initial statement in the work plan indicates that 'risk associated with shellfish consumption' (Section 1.2, page 2) will be addressed. However, the document concentrates on 1) use of *Macoma nasuta* as a surrogate for fish tissue concentration in the human health risk assessment (HHRA) and 2) statistical tests of any difference in Hunters Point Shipyard (HPS) fish tissues compared to reference stations around San Francisco Bay. There appears to be no separate investigation of shellfish consumption risk or hazard. Please see HERD comment number 7 below for our specific recommendations.
2. We agree that the primary purpose of the investigation of the risk and hazard associated with fish ingestion at HPS is whether the risk is elevated above the risk of consuming fish in other 'reference' areas of San Francisco Bay. However, if the risk or hazard associated with the fish/shellfish ingestion pathway would raise risk above 1×10^{-6} or the HQ above one, a table must be presented for the risk manager in the Parcel F RI.
3. Where available, site-specific or region-specific exposure parameters should be used rather than national exposure parameters. The shellfish/fish consumer rate (Section 2.1, page 4 and Appendix C, page C-1) should be the rate in the Lao study for SF Bay. The most recent region specific shellfish/fish consumption rates are contained in *Seafood Consumption Survey of the Laotian Community of West Contra Costa County, CA, Asian Pacific Environmental Network, March 1998* and these rates should be used as representative of local high seafood consumption population in the San Francisco Bay area. This would increase the ingestion rates by approximately a factor of 10 and subsequently reduce the RBSCs by 10.
4. We agree that fillets of fish with the skin on are appropriate for the statistical comparison to reference areas in this study, as that method is consistent with the regional monitoring plan (Section 2.2, page 7). However a subset of samples should be analyzed as whole fish for consideration in the Reasonable Maximum Exposure (RME) for a sensitive subpopulation (Minutes of July 11, 2000 conference call, page A-6). There is considerable evidence that a subpopulation of fishers consume the entire fish. Please see the comment regarding the survey of Laotian fishers.
5. Use of the reference area concentrations (Section 3.2.2, page 11) for a statistical test is dependent on the distribution of tissue values. Reference stations which are obviously outliers should be excluded prior to statistical

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- testing. Non-parametric data examination techniques can be employed to determine whether any reference station tissue concentrations are outliers.
6. Individual fish included in a composite sample (Section 3.2.3, page 15) must be similar size (age) fish both at HPS stations and reference stations. Including a 150 gram fish with 20 gram fish would increase the variance and decrease the probability of finding any difference between HPS and reference samples. The fish sampling data sheet (Appendix D, page D-7) does not indicate an area for the notation of either the weight or length of each fish used to construct a composite sample. Please record either the weight or standard length of each fish used in each composite.
 7. HERD continues to recommend that mussels from pilings at Hunters Point Shipyard (HPS) or some other substrate, such as concrete rip rap, be collected. It is not necessary that there be 'shellfish beds of sufficient size' (Appendix B, page B-13). We know there are mussels at HPS. These mussels could serve two purposes. They would provide a comparison to the *Macoma nasuta* tissues, which are exposed for 28 days. And even if outside the Low Volume Footprint, would provide information to evaluate any tissue concentration to sediment concentration relationship. Collection of mussels was discussed during the April 3, 2000 telephone conference call (Appendix A, page A-4).
 8. The focus of this work plan is HPS, not Alameda Point (Appendix C, Fraction Ingested, page C-1). Please correct this typographic error until a similar document is presented for the Seaplane Lagoon and Alameda Point.
 9. The *de minimus* risk in the calculation of RBSCs must be 1×10^{-6} , not 1×10^{-5} (Appendix C, Table C-1). Please change the point of departure risk in these calculations.
 10. We could find no direct statement of the order in which the trawling will be done at the various sampling stations (Appendix D, Section D.4). HERD recommends that the HPS stations be sampled first, so that the same species can then be collected at the reference stations. Please inform DTSC in advance of the sampling in the event we wish to send an observer on the boat during the sampling effort at HPS.

Conclusions

We appreciate the effort the Navy and Navy contractors have made to develop a fish tissue sampling effort for Hunters Point Shipyard.

The major risk assessment issues raised above are use of the study of Laotian fishers for the sensitive subpopulation, collection of a subset of whole fish tissue

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concentrations, use of the 1×10^{-6} *de minimus* risk for development of the RBSCs and collection of shellfish from HPS.

Reviewed by: Michael Wade, Ph.D., DABT, Senior Toxicologist, HERD

cc: Daniel Stralka, Ph.D.
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