



Chein Kao
August 23, 2000
Page 1

Department of Toxic Substances Control

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HUNTERS POINT
SSIC NO. 5090.3



Jesse R. Huff, Director
400 P Street, 4th Floor, P.O. Box 806
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Gray Davis
Governor

MEMORANDUM

Winston H. Hickox
Secretary for
Environmental
Protection

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: August 23, 2000

SUBJECT: BIOACCUMULATION LINE OF EVIDENCE PROPOSAL FOR PARCEL
F AT FOR HUNTERS POINT SHIPYARD.
[PCA 14740, SITE 200050-47 H:20]

Background

We have reviewed the document titled *Proposal for Bioaccumulation Line of Evidence Hunters Point Shipyard Parcel F Validation Study*. This proposal was forwarded by electronic mail on August 8, 2000 and has a footnoted dated of August 7, 2000. HERD participated in a conference call to discuss this material on Tuesday, August 15, 2000. This review is in support of the ongoing review and participation on the Sediment Work Group working towards further assessment of the sediments in Parcel F at Hunters Point Shipyard (HPS).

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 terrestrial property at HPS is approximately 497 acres on land.

General Comment

The specific comments contained in this memorandum are technical issues which deal with the use and interpretation of data to be collected in the sampling of Parcel F sediments. These comments should not delay sampling and analysis of the Parcel F sediments.

Specific Comments

1. The reference threshold for HPS tissue concentrations should be an upper percentile of the *Macoma nasuta* tissue concentration from the reference stations where five replicates of the composite sediment sample from each reference station will be used for *Macoma nasuta* bioaccumulation tests (Step 1, Page 1). The appropriate percentile of the reference station tissue concentration can be determined after review of the distribution of the reference site tissue concentrations. An Upper tolerance limit (UTL) for the small number of tissue concentration values does not appear to be a health conservative method of evaluation.

Chen Kao
August 23, 2000
Page 2

2. We agree that the *Macoma nasuta* tissue concentration is most easily incorporated into the assessment for upper trophic levels (Step 2, Page 2) as this tissue concentration will be available for each sampling location. However, marked differences between the laboratory depurated *Macoma nasuta*, the non-depurated *Macoma nasuta* and the field collected invertebrate tissue concentrations may require some tissue concentration other than the laboratory depurated *Macoma nasuta* be used in the assessment of hazard to upper trophic levels.
3. There is no way to know what the uncertainty is for the surf scoter diet items until the field samples are collected. We question whether the prey selection of surf scoter is selective enough to conclude that field-collected invertebrate tissue will be variable enough to make conclusions regarding the uncertainty regarding the potential impact to invertebrate feeding birds (Step 2, second bullet item, page 3). This decision can be deferred until the tissue concentrations are known.
4. The concentration for Contaminants of Potential Ecological Concern (COPEC) for field collected invertebrate tissues (Step 2, third bullet item, page 3) may, or may not, be substituted for the concentration determined for non-depurated *Macoma nasuta* tissues, depending on the results of the depurated, non-depurated and field-collected tissue concentrations. This issue can be discussed and decided after the tissue concentrations for all methods of analysis are available.
5. The 95 percent upper confidence limit on the arithmetic mean of the tissue concentration should be used as the prey concentration for the surf scoter, rather than the mean (Step 2, Page 4).
6. The proposed 3 percent sediment ingestion rate for the surf scoter (Step 2, page 4) seems fairly low for a bird feeding in the sediments. Sediment ingestion rates of 10 to 20 percent have been used for shorebirds in previous Navy Ecological Risk Assessments (ERA). It would seem unlikely that a bird which can dive to 20 feet while foraging (Step 2, last bullet item) would not ingest as much sediment as a shore feeding, non-diving bird. The proposed sediment ingestion rate remains to be resolved when representatives of the U.S. Fish and Wildlife Service (USFWS) and National Oceanic and Atmospheric Administration (NOAA) are available for discussion.
7. We agree that an appropriate Site Use Factor (SUF) has not been determined for the surf scoter (Step 2, page 4). The fact that 'tens of thousands' of surf scoters are present at HPS (Step 2, page 3) indicates that the HPS habitat must be favorable for at least some requirements of the surf scoter. A default value of 1 should be used in the initial calculations, realizing that this is very conservative. A more realistic SUF can be agreed upon if the use of a SUF of 1.0 indicates some potential hazard to the surf scoter.
8. We disagree with the description of the Navy/BTAG high TRV as consistent with the Lowest Observable Adverse Effect Level (LOAEL) (Step 2, page 4). The Navy/BTAG high TRV was selected to represent a dose which would be of concern, not the LOAEL.

Comments on Proposed Response to Comments on Validation Study Work Plan

9. The Navy response to DTSC General Comment number 1, regarding the areas specifically excluded from the Parcel F Validation Study, refers to the response to U.S. EPA Region 9 Specific Comment number 1. The response to U.S. EPA Region 9 Specific Comment number 1 does not address all the areas outlined in the DTSC

Chein Kao
August 23, 2000
Page 3

General Comment. Specifically, the response to U.S. EPA Region 9 refers only to the material with elevated concentrations between the rip rap along the South Basin. This response is insufficient, as it does not address the area inshore of the concrete tiedowns in Area III and the area of oxidized metal extending out from the point in Area VIII into the subtidal. Please provide a more complete response to the DTSC General Comment outlining how these two additional areas will be addressed outside of the Parcel F Validation Study.

10. Several issues in the bioaccumulation proposal remain to be resolved (Response to DTSC Specific Comment number 11 and number 13), as discussed during the August 15, 2000 conference call. Specifically, the proposed Site Use Factor (SUF), the incidental sediment ingestion rate for the surf scoter and removal of outlier values in the sediment reference station results remain to be resolved.

Conclusions

These comments mainly relate to the assessment of the potential risk to diving waterfowl and the description of areas nominally in Parcel F which must be transferred to some terrestrial parcel for further evaluation of remedial alternatives. These comments should not delay the sampling and analysis of Parcel F sediments.

Reviewed by: Michael Anderson, Ph.D.
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Department of Toxic Substances Control



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Gray Davis
Governor

September 5, 2000

Commanding Officer
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Attention: Mr. Richard March

PARCEL F PROPOSAL FOR BIOACCUMULATION LINE OF EVIDENCE, HUNTERS
POINT SHIPYARD, SAN FRANCISCO, CALIFORNIA

Dear Mr. Mach:

The Department has completed its review of the above-mentioned document dated August 7, 2000. Please find our comments in the attachment.

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

cc: Ms. Sheryl Lauth
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