



Department of Toxic Substances Control



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Winston H. Hickox
Secretary for
Environmental
Protection

February 4, 1999

Commanding Officer
Engineering Field Activity, West
Naval Facilities Engineering Command
Attn: Mr. Ernesto Galang
900 Commodore Drive
San Bruno, California 94066-2402

RESPONSE TO AGENCY COMMENTS ON THE DRAFT REMEDIAL INVESTIGATION
OFFSHORE SEDIMENTS OPERABLE UNIT, NAVAL STATION TREASURE ISLAND
(NOVEMBER 16, 1999)

Dear Mr. Galang:

The Department of Toxic Substance Control has reviewed the Response to Agency Comments on the Draft Remedial Investigation Offshore Sediments Operable Unit (RIOSOU) Report for Naval Station Treasure Island, dated November 16, 1999. Enclosed with this letter please find comments from Mr. James M. Polisini, Ph.D., Staff Toxicologist of the Human and Ecological Risk Division of the Department of Toxic Substance Control.

If you should have any questions regarding this letter, please contact me at (510) 540-3763.

Sincerely,

A handwritten signature in cursive script that reads "David Rist".

David Rist
Hazardous Substances Scientist
Office of Military Facilities

Enclosure

cc: See next page.

Mr. Ernie Galang
February 4, 1999
Page 2

cc: Mr. James Ricks Jr. (SFD-8-2)
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Department of Toxic Substances Control



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Gray Davis
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MEMORANDUM

Winston H. Hickox
Secretary for
Environmental
Protection

TO: David Rist, Project Manager
Office of Military Facilities, Region 2
700 Heinz, Second Floor, Building F
Berkeley, CA 94704

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

DATE: February 2, 1999

SUBJECT: RESPONSE TO COMMENTS ON DRAFT OFFSHORE ECOLOGICAL
RISK ASSESSMENT TREASURE ISLAND
[PCA 14740, SITE 200231-47 H:16]

Background

We have reviewed the document titled *Response to Agency Comments on the Draft Remedial Investigation, Offshore Sediments Operable Unit, Naval Station Treasure Island, San Francisco, California*, dated November 16, 1998. The response to comments was prepared by Tetra Tech, EM Inc., of San Francisco, California. This review is in response to your written work request dated January 28, 1999.

General Comments

We have some concerns regarding the response to HERD comments detailed below.

Specific Comments

- Specific Comment 1.** We would not agree that application of the Ambient Water Quality Criteria (AWQC) value to pore water concentrations is overly conservative. It has been the Navy position that the critical exposure pathway for benthic organisms is pore water. In fact, evaluation of the pore water concentration alone may underestimate ecological hazard for those infaunal organisms which ingest sediments and are exposed to pore water concentrations. We understand the argument presented earlier in the response, that the differing detection limits for pore water and sediment justify the statement in the Remedial Investigation (RI) Report. The phrase '...due to differing detection limits...' should be added to the discussion of negligible risk due to DDT when DDT is detected in pore water but not in sediments. This phrase should also be included in Section 14.4 of the RI Report as the response to HERD Specific Comment 33 references the response to HERD Specific Comment 1.
- Specific Comment 2.** The response indicates that human health risk associated with ingestion of fish or shellfish is addressed in detail in Section 3.7.3.2 of the onshore operable unit (OU) RI Report, but does not indicate how the offshore OU RI Report will address this comment. Our suggestion is that the offshore OU RI Report indicate

that there is no direct human exposure to subtidal sediments and reference Section 3.7.3.2 of the onshore RI Report.

3. **Specific Comment 3.** Given the guidance from EPA Region X, that organotin in sediments should be evaluated based on pore water rather than sediment concentration, it is reassuring that organotin was retained as a contaminant of ecological concern (COEC) at every location where it was detected. The point of the HERD comment was that if sediment concentrations are derived using equilibrium partitioning (EqP) the individual total organic carbon for each sample should be used rather than assume 2 percent organic carbon for all samples. The response does not address this portion of the HERD comment.
4. **Specific Comment 12.** We understand the exceedance criterion will be changed from 15 percent to 10 percent and this criterion does appear conservative for TI sediments given the example table provided. Please identify the source of this criterion. If it was derived by observation of the TI data, please state the source as such.
5. **Specific Comment 16.** We do not agree with the proposed interpretation of the Simultaneously Extracted Metal – Acid Volatile Sulfide (SEM/AVS) ratio in application to bioaccumulation. It is not necessary for the SEM/AVS ratio to exceed one for metals in sediment to be bioavailable to upper trophic level predators. If this were the case there would be no food web transfer of metals until benthic organisms were on the verge of acute toxic effects.
6. **Specific Comment 17.** A recommendation is being prepared by the U.S. EPA Region IX Biological Technical Assistance Group (BTAG) regarding the estimation of high and low ingestion rates for vertebrate receptors. HERD will transmit that recommendation to the Navy when complete.
7. **Specific Comment 29.** This HERD comment specifically refers to a 60 percent amphipod mortality value used in the RI Report in Section 13.2.1, pages 13-10 and 13-11. The response to Specific Comment 11 is referred to in response. The response to Specific Comment 11 does not mention the 60 percent amphipod mortality. The response to Specific Comment 29 is insufficient. The 60 percent amphipod mortality criterion should be removed from the RI Report and the 68 percent amphipod mortality envelope value developed by the San Francisco Regional Water Quality Control Board used.
8. **Specific Comment 31.** The results of the suitable alternatives to discriminant analysis should be transmitted for review prior to inclusion in the draft final RI Report. We would point out that it is not critical that the assumptions of multivariate normality and equality of variance be strictly adhered to when using multivariate techniques for data investigation purposes.
9. **Specific Comment 32.** This response seems to indicate that the amphipod survival of 77 percent plus or minus 24 percent will continue to be used. HERD considers amphipod survival rates of less than 68 percent in 100 percent fines sediment samples indicative of an adverse response.

Conclusions

With the exception to the comments listed above the response to HERD comments is adequate. We look forward to receipt of the 'suitable alternative' to the discriminant analysis proposed in the original HERD comments.

Reviewed by: Brian K. Davis, Ph.D.
Staff Toxicologist, HERD

cc: Michael J. Wade, Ph.D., DABT
Senior Toxicologist, HERD

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