



N68311.000436
NAVSTA LONG BEACH
SSIC #5090.3

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IX

75 Hawthorne Street
San Francisco, Ca. 94105-3901

May 18, 1994

Mr. Duane Rollefson
Naval Station Long Beach
Code N46, Building 1, Room 268
Long Beach CA 90822-5000

Subject: Draft Final Technical Memorandum No. 4, Implementation
of Final RI/FS Sampling and Analysis Plan for Naval
Station Long Beach, Long Beach, California

Dear Mr. Rollefson:

Enclosed please find the Environmental Protection Agency's
(EPA's) Comments regarding the subject document received on April
28, 1994. EPA has reviewed the draft final document along with
Bechtel's response to comments table provided in the attachment.

In general, the final draft technical memorandum has been revised
to reflect discussions held between the NAVY and the regulatory
agencies and incorporates the comments provided on the draft
document; therefore, EPA is in agreement with the sampling
approach and overall study design. However, as the draft final
document was significantly revised from the draft, there are
still some minor issues that require further discussion and/or
clarification prior to implementation of the sampling program.

We have reviewed the comments submitted by DTSC and RWQCB and
have tried to limit duplication of their comments. If you have
any questions regarding these comments, please contact me at
(415) 744-2410.

Sincerely,

A handwritten signature in cursive script that reads "Sheryl L. Lauth".

Sheryl L. Lauth
Remedial Project Manager

Attachment

cc: Alvaro Gutierrez, DTSC
Denise Klimas, NOAA
Dr. Clarence Callahan, EPA
Krish Kapur, Bechtel

**EPA'S COMMENTS ON THE DRAFT FINAL TECHNICAL MEMORANDUM NO. 4,
IMPLEMENTATION OF FINAL RI/FS SAMPLING AND ANALYSIS PLAN
NAVAL STATION LONG BEACH, LONG BEACH, CALIFORNIA**

GENERAL COMMENTS

1. It is still unclear, from the information provided, how conflicting sampling results will be interpreted and how the biological response data and/or chemistry data will be interpreted in relation to site specific and non-site specific sources.
2. What is the "hit" = + level in terms of sediment chemistry? What is meant by the " ≥ 1 " hit? We suggest that any one chemical of concern in the test area with a concentration greater than in the reference area indicates a hit. The same would apply to the sediment bioassay, any one difference greater than 20% between the test area and reference area is defined as a hit.

SPECIFIC COMMENTS

1. Table 3. Performance Criteria. How will pore water samples and tests be factored into the process?
2. The suggested interpretation of the benthic community analysis (50% difference) must be qualified with citations for justification of this level of difference. Please provide citations where this level of 50% has been used successfully to show that the difference can be interpreted. This evaluation is very sensitive to factors other than toxicants therefore reference sites must be chosen very carefully.
3. Please provide justification for the target level of 70% for the growth test benchmark, generally a statistical difference is sufficient to decide a hit or not.
4. The text on page 10 of the document references a requirement for depuration for *Macoma nasuta* from "EPA 1986" that is not in the citations except for SW-846. Is this correct? Again, we would defer to the approved protocol for testing of tissue levels of contaminants.
5. Please clarify the decision points presented in Figure 3. For instance, for the comparison of individual weights between the reference and control, is this the control for the reference sites? and why would the test fail if the weights were not greater than 20%? This comparison should insure that the reference sample weights are "good" with respect to the reference site controls and that comparisons

can be made to the test sample weights.

How is the 30% target in the last comparison different or the same as the 70% target from Table 3? The last two boxes should be combined, such that the difference between the reference sites and the test sites are compared for a statistical difference in biomass at the 5% level or compared at a 20% difference in mortality or a 30% difference in biomass, but not statistical significance and a percentage difference.

Where did 10 and 15 mg/l come from as target values?

6. Figure 5. "Water Column effects"

Tissue chemistry for potential ecological effect must not be based on FDA action levels.

The last comparison between toxic and clean sediments should be supported by pore water testing as a more definitive effort.