



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105-3901

N60028_000707
TREASURE ISLAND
SSIC NO. 5090.3.A

OFFICE OF THE
REGIONAL ADMINISTRATOR

May 22, 1997

Ernesto M. Galang
EFA West - Code 1832.5EG
Naval Facilities Engineering Command
900 Commodore Drive
San Bruno, California 94066-2402

Re: Draft Remedial Investigation Report, Addendum No. 4 -
Revised Remedial Investigation Conclusions and
Recommendations for Naval Station Treasure Island dated
April 10, 1997

Dear Mr. Galang,

The U. S. Environmental Protection Agency (EPA) has received and
reviewed the subject document. EPA's comments are enclosed.

If you have any questions, please call me at (415) 744-2383.

Sincerely,

Rachel D. Simons

Rachel D. Simons
Remedial Project Manager
Federal Facilities Cleanup Office

Enclosures

cc: Jim Sullivan, NAVSTA TI
Mary Rose Cassa, DTSC
Gina Kathuria, CRWQCB
Martha Walters, SFRDA
Sharon Tobias, PRC
File
Pat Nelson
Paul Hehn
ARC Ecology
John Allman
Usha Vedagiri
Admin Record Files (3 copies)

**Draft Remedial Investigation Report, Addendum No. 4 -
Revised Remedial Investigation Conclusions and Recommendations
for Naval Station Treasure Island dated April 10, 1997**

General Comments:

1. Until EPA's comments are addressed on Addendum 1 - Contaminant Fate and Transport Modeling, EPA cannot concur on the conclusions for groundwater at any sites.
2. In this addendum, some sites are recommended for source removal in an EE/CA and others for further evaluation in a FS. Please provide the rationale for selecting an EE/CA over a FS. EPA questions whether performing a cleanup action under an EE/CA will be faster than through a FS/ROD at this point in the process.
3. Based on the concern over the breakdown of TCE and PCE into vinyl chloride expressed at the April 4, 1997 Risk Assessment Meeting, EPA evaluated the biodegradation of TCE and DCE at IR Sites 21 and 24 using the information presented in the Draft RI Report. EPA concluded that anaerobic biodegradation of PCE and TCE to DCE and VC is occurring at both of these sites and that VC may continue to accumulate or be biodegraded. Please see attached EPA memorandum dated May 9, 1997. This information should be consider for both the Draft Final RI and Draft FS.

Specific Comments:

1. **Section 2.2 Site 07/10 - Pesticide Storage Area/Bus Painting Shop, page 4**

Please provide a figure showing the two storm water catch basins around building 335 that have been removed. In a figure, please also distinguish the area of the former sludge disposal west of building 62 and the area north of the concrete pad and building 335 since different actions are recommended for these areas.

2. **Section 2.4 Site 11 - Yerba Buena Island Landfill, page 7**

In the first bullet at the bottom of the page, Site 11 is recommended for further evaluation in a FS. Will this evaluation include both soil and groundwater? Also in the third bullet, site use by the peregrine falcon is recommended for further evaluation. Will this evaluation be included in the Draft Final RI report? Please clarify.

3. **Section 2.8 Site 24 - Fifth Street Fuel Release/Dry Cleaning Facility, page 13**

Please distinguish the area of petroleum hydrocarbon soil on a figure.



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MEMORANDUM

SUBJECT: Biodegradation of Chlorinated Solvents at Sites 21 and 24, Review of Chapters 14 and 15 of the draft Remedial Investigation Report, Naval Station Treasure Island, October 1996.

FROM: Ned Black, Ph.D.
Biologist/Ecologist
Technical Support Team (SFD-8-B)

TO: Rachel Simons
Project Manager (SFD-8-2)

DATE: 9 May 1997

I have reviewed the sections of the draft RI referenced above which discuss the groundwater contamination at IR Sites 21 and 24. I have the following comments regarding the chlorinated ethenes present in the groundwater at these two sites:

1. Anaerobic biodegradation of tetrachloroethene (PCE) and trichloroethene (TCE) is occurring at both of these sites. The presence and relative amounts of dichloroethene (DCE) isomers and vinyl chloride (VC) are unambiguous evidence of this activity. Abiotic degradation of PCE and TCE would produce drastically less DCE and VC.
2. The high dissolved oxygen (DO) values measured in wells at these sites are artifacts. DO measurements in groundwater are easily contaminated and highly unreliable. If the Navy continues to measure DO, a different technique should be used.
3. The statement made on pg. 15-25 (first incomplete paragraph) that, "Chlorinated solvents are resistant to biodegradation, which is therefore not an important process affecting the distribution of these compounds in groundwater..." is false. Biodegradation of chlorinated solvents is not ubiquitous, but is estimated to occur in a significant portion of contaminated groundwater plumes nationwide. The co-occurrence of petroleum hydrocarbons in the groundwater at these sites favors biodegradation.
4. The groundwater contamination at these sites appears to be migrating. As such, EPA could not endorse the use of natural attenuation as a remedy. The ecological risk associated with migration of the chlorinated compounds into the marine

environment should be evaluated. However, in light of the status of this aquifer, natural *in situ* biodegradation could be considered as part of a protective remedy.

5. Vinyl chloride may continue to accumulate or it may itself be biodegraded. The possibility that vinyl chloride might migrate from soil gas to the surface can not be discounted.

6. There is not yet sufficient groundwater monitoring data to predict the time course of biodegradation at these sites. As part of continued groundwater monitoring, the DCE isomers should be individually analyzed and reported.

I would be pleased to discuss this further with you, the Navy, or its contractors. I can be reached at 415-744-2354.