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22 Oct 1997

From: Commanding Officer, Engineering Field Activity, West, Naval Facilities Engineering Command

Subj: REMEDIAL INVESTIGATION/FEASIBILITY STUDY (RI/FS) FOR
NAVAL STATION TREASURE ISLAND (NAVSTA TI)

Encl: (1) Response to Agency Comments on Addendum No. 4 (Revised Recommendations and Conclusions) to the Draft Remedial Investigation Report

1. Enclosure (1) is provided for your information. Comments were received from Cal/EPA Department of Toxic Substances Control, in conjunction with the San Francisco Bay Regional Water Quality Control board, and from the U.S. Environmental Protection Agency.
2. Addendum No. 4 presents revised conclusions and recommendations to the draft RI report for Installation Restoration program sites 05, 07, 09, 10, 11, 12, 17, 21, and 24. The revisions include information on contaminant fate and transport modeling, additional characterization at sites 12 and 17, and the development of petroleum screening levels. The revised conclusions and recommendations in Addendum No. 4 have been incorporated into the draft final RI report, except for minor changes based on discussions with the regulatory agencies.
3. Thank you for your guidance and involvement in this project. For further information, please call me at (650) 244-2560.

Original signed by:

ERNESTO M. GALANG
By direction of
the Commanding Officer

Distribution:

California Department of Toxic Substances Control (Attn: Ms. Mary Rose Cassa)
California Regional Water Quality Control Board (Attn: Mr. Dennis Mishek)
U.S. Environmental Protection Agency, Region IX (Attn: Mr. James Ricks, Jr.)
San Francisco Redevelopment Agency (Attn: Ms. Martha Walters)
Tetra Tech EM Inc. (Attn: Mr. Richard Knapp)(w/o encl)

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**RESPONSE TO AGENCY COMMENTS
ON THE DRAFT REMEDIAL INVESTIGATION REPORT,
ADDENDUM NO. 4 - REVISED REMEDIAL INVESTIGATION
CONCLUSIONS AND RECOMMENDATIONS
NAVAL STATION TREASURE ISLAND**

This document presents the Navy's responses to comments from the regulatory agencies on the draft Remedial Investigation Report, Addendum No. 4 - Revised Remedial Investigation Conclusions and Recommendations for Naval Station Treasure Island (NAVSTA TI). The comments addressed below were received from the Environmental Protection Agency (EPA) on May 22, 1997 and from the Department of Toxic Substance Control (DTSC) on June 5, 1997.

RESPONSE TO COMMENTS FROM EPA

General Comments:

1. **Comment:** 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.

Response: The Navy will provide responses to EPA's comments on Addendum 1 as an appendix to the draft final Remedial Investigation (RI) Report.

2. **Comment:** 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.

Response: The sites which were recommended for EE/CAs have technical characterizations which are relatively simple and may be addressed through soil removals. Since the EE/CA process is less complex than a FS/ROD, it may achieve faster remediation and closure at these sites.

3. **Comment:** Based on the concern over the breakdown of trichloroethene (TCE) and tetrachloroethene (PCE) into vinyl chloride (VC) 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 dichloroethene (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 considered for both the draft final RI and draft FS.

Response: The Navy will incorporate the information on VC provided by EPA into the draft final RI Report. The Navy is currently formulating a general response to the issue of biotransformation of chlorinated solvents.

Specific Comments

1. **Comment:** 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.

Response: Figure 8-1 of the draft final RI report has been revised to show the subject catch basins. It also depicts the sludge disposal area to the west of Building 62. Figure 8-5 of the draft final RI has been revised to show the estimated boundaries of the potential removal action in the areas north and east of Building 335.

2. **Comment:** 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.

Response: The FS will address both soil and groundwater contamination at Site 11.

The Navy plans to collect tissue samples from red-winged blackbirds that nest on Yerba Buena Island. Tissue samples will be collected to evaluate the possible doses of contaminants peregrine falcons are exposed to by ingesting birds that forage at Yerba Buena Island. This information will be used to calculate doses to peregrine falcons to determine whether adverse effects on the peregrine falcons are likely occurring. The results of the investigation will be presented as an addendum to the final RI report.

3. **Comment:** 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.

Response: Figure 15-4 of the draft RI shows the locations and concentrations of petroleum hydrocarbons in soil samples at Site 24. The abandoned fuel line is the likely source of the petroleum hydrocarbon soil contamination. The fuel line location is indicated by the geophysical survey portrayed on Figure 15-4. The fuel line will be added to the corresponding figure in the draft final RI report.

May 9, 1997 EPA memorandum :

**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**

General Comments:

- 1. Comment:** **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.**

Response: Comment noted. The interim groundwater monitoring plan provides for empirically monitoring the location, concentration, and composition of chlorinated solvent plumes at all sites where they are present. Appropriate remedial actions will be initiated if these data warrant them.
- 2. Comment:** **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.**

Response: Acknowledging the unreliable nature of DO measurements in groundwater samples, the Navy will focus on the relative concentrations of individual chlorinated hydrocarbon breakdown products to assess the extent of in situ biodegradation.
- 3. Comment:** **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.**

Response: The subject statement in the draft final RI has been revised to state "In comparison with physical mechanisms, biodegradation is not expected to significantly affect concentrations of chlorinated hydrocarbons in groundwater. However, biodegradation of solvents such as PCE and TCE result in the formation of degradation products such as 1,2-DCE and vinyl chloride."

4. **Comment:** **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.**

Response: The modeling and ecological risk assessments presented in the draft final RI and addenda have already identified PCE and TCE in groundwater at Site 24 as ecological COCs which will be evaluated further in the FS. More detailed modeling may also consider natural in situ biodegradation of these compounds in the FS.

5. **Comment:** **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.**

Response: The possibility that vinyl chloride might migrate from soil gas to the surface was examined in the Air Sampling Technical Memorandum, which will be included as an appendix to the draft final RI and incorporated into the discussion of Site 24. As reported in the memorandum, vinyl chloride was not detected in any of the four air samples taken at Site 24. Should groundwater monitoring detect significant increases in VC concentrations, additional air sampling may become appropriate.

6. **Comment:** **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.**

Response: The Navy plans to analyze and report DCE isomers individually in the future. This will facilitate more detailed tracking of in situ transformation of VOCs.

RESPONSE TO COMMENTS FROM DTSC

General Comments:

1. **Comment:** **The state cannot concur on any conclusions or recommendations until comments are addressed on the draft Remedial Investigation Report and Addenda 1 through 3.**

Response: The Navy will provide responses to the state's comments on the draft remedial investigation (RI) report and addenda 1 and 3 as appendices to the draft final RI report. No comments were received from the state on addendum 2.

2. **Comment:** **For planning purposes, the Navy should be aware that, in exercising our discretionary approval of the recommended removal actions, DTSC will be required to comply with the California Environmental Quality Act, which will likely require preparation of a Negative Declaration. For a Negative Declaration, DTSC must issue a public notice and allow thirty days for public comment. This public notice should be included in the Navy's public notice for the EE/CA or equivalent document, and the comment period should run concurrent with the Navy's public comment period for the EE/CA.**

Response: Comment noted.

Specific Comments:

1. **Comment:** **Section 2.1, Site 05 - Old Boiler Plant: Given the presence of tetrachloroethene at 370 ppb at Site 5 and indications that vinyl chloride is present, it is premature to determine that this site requires no further action under CERCLA until cleanup goals are established.**

Response: The maximum concentration of tetrachloroethene (PCE) at Site 05 is below the AWQC, so it is not considered a COPC and did not require modeling. Cleanup goals would only be necessary if PCE were a COC under consideration in the FS.

2. **Comment:** **Section 2.2, Site 07/10 - Pesticide Storage Area/Bus Painting Shop:**
- a. **Please address the status of storm water catch basins with drain pipes that have been capped. Doesn't this pose a flooding problem?**
 - b. **The Navy should provide a map showing the two separate areas of contamination so that the proposed recommendations can be distinguished.**

- Response:**
- a. The pipes leading to the storm water outfalls have been plugged, and new piping has been installed to convey the storm water to the sanitary sewer system.
 - b. The sludge disposal area west of Building 62 is shown on Figure 8-1 of the draft final RI, and Figure 8-5 has been revised to show the estimated boundaries of the potential removal action in the areas north and east of Building 335.

3. **Comment:** **Section 2.4, Site 11 - Yerba Buena Island Landfill:**
- a. **The first paragraph should include pipelines as the possible source of petroleum contamination. It would be more accurate to attribute metals contamination to vehicle emissions from the Bay Bridge, rather than just car emissions.**
 - b. **The description of the distribution of TPH contamination in the second paragraph should specify which edge of the landfill has the highest TPH contamination.**

- Response:**
- a. Comment noted.
 - b. The sentence stating "The highest TPH concentrations were detected in monitoring wells located along the edge of the landfill" has been deleted since spatial variations in concentration do not exhibit a significant trend.

4. **Comment:** **Section 2.6, Site 17 - Tanks 103 and 104: It would be clearer to state in the second paragraph, "...to determine if VOCs may be migrating downgradient from Site 05."**

- Response:** Comment noted. The revision has been incorporated into the draft final RI report.

5. **Comment:**

Section 2.8, Site 24, Fifth Street Fuel Release/Dry Cleaning Facility: The Navy should consider using detailed sampling through profile sampling or multi-level sampling to further evaluate chlorinated hydrocarbon contamination and evaluate remedial alternatives for groundwater.

Response:

As stated in Section 2.8, additional characterization of chlorinated hydrocarbons is planned at Site 24. This investigation does not include profile or multi-level sampling, but involves sampling from three discrete depths at numerous locations. These results will be presented in the final RI report, and should adequately characterize the chlorinated hydrocarbon contamination at Site 24.