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

January 26, 1995

Ernesto M. Galang
Western Division - Code T4A2EG
Naval Facilities Engineering Command
900 Commodore Drive
San Bruno, California 94066-2402

Re: Draft Final Phase IIB Remedial Investigation Work Plan Addendum for Naval Station Treasure Island dated January 3, 1995

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) 744-2368.

Sincerely,

Rachel D. Simons

Rachel D. Simons
Remedial Project Manager
Federal Facilities Cleanup Office

Enclosures

cc: Jim Sullivan, NAVSTA TI
Mary Rose Cassa, DTSC
Michael Bessette, CRWQCB
H-9-2 File

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366

DRAFT FINAL PHASE IIB REMEDIAL INVESTIGATION WORK PLAN ADDENDUM NAVAL STATION TREASURE ISLAND (NSTI) DATED JANUARY 3, 1995

Specific Comments:

1. Section 4.2.2 Site 20 Sampling Locations, p-34

It is well documented that certain types of hydraulic fluid manufactured before 1978 contained PCBs. The hydraulic lifts inside building 225 may be a source of hydraulic oil/PCB contamination and should be inspected for integrity. Please indicate how the lifts will be addressed.

2. Section 5.1.1 Site 06 Field Investigation Strategy, p-37

As discussed in the January 23, 1995 RPM/BCT meeting, the number of dioxin samples collected at Site 06 should be reduced to a minimum of 4 samples.

3. Section 6.1.3 Sites 04 and 19 Field Methods and Procedures, p-54

EPA recognizes that the PA/SI soil samples (SB-1, SB-2 and SB-4) at Site 04 did not detect PCBs, but the oil observed inside building 342 may be from a different source. Since building 342 has been the Hydraulic Training School for at least 20 years, the oil observed inside building 342 may be hydraulic oil containing PCBs. As discussed in the January 23, 1995 RPM/BCT meeting, please include PCB analysis for sample N.

4. Section 7.1 Site 09 Foundry, p-65

It is recommended that the hydraulic lift pit inside building 41 be steam cleaned and inspected for integrity (e.g. cracks in the concrete) before sampling is performed. If the pit appears to be in good condition, soil sampling may not be necessary.

5. Section 8.1.1 Site 15 Field Investigation Strategy, p-73

Please provide the status of locating the potentially contaminated area near the commissary.

6. Section 10.1.2 Levels of Concern and Analytical Quantitation Limits, p-95

The detection limits for soil analyses should be compared to specific risk-based criteria for both human health and ecological risk assessment. An example of human health risk-based criteria is the U.S. EPA Region IX PRGs. This comparison is necessary to show the limitations of the risk assessment.

The risk-based criteria should be agreed upon by the Project Team

(EPA, DTSC, RWQCB and Navy). An example of this comparison from another federal facility is enclosed. In this example (Table 3.3), "RBC" is the human health risk-based criteria and "Eco-Tox Crit." is the ecological risk-based criteria. The numbers in bold identify the compounds that have detection limits higher than the specified risk-based criteria.

7. Section 10.2.2 Soil and Groundwater Chemical Analyses, p-98

It is recommended that groundwater samples be collected and analyzed for redox potential (Eh) to provide information on the degradation of organic compounds in the saturated zone.

8. Section 11.0 Data Evaluation, p-105

Since only the off-site laboratory samples will be used for risk assessment, EPA is concerned that if half the samples sent to the off-site laboratory are to confirm "non-detect" field screening results, then the results of the BHHRA could be skewed and potentially dilute out the effects of the contamination. In order to avoid this scenario, the spatial distribution of the off-site laboratory samples must be considered when conducting the BHHRA. As discussed in the January 23, 1995 RPM/BCT meeting, please explain how this will be addressed.

9. Table 10 Site 17, Tanks 103 and 104 Samples and Analyses, p-125

Since the only source of PCBs at Site 17 is the "possible spreading of PCB-containing oil for weed and dust control" and since the Phase I RI samples for Site 17 did not detect PCBs, it is recommended that PCB analysis be limited to a few surface soil samples near the base of Tanks 103 and 104.

10. Table 18 Site 16, Clipper Cove Tank Farm Samples and Analyses, p-133

Since the only source of pesticide contamination at Site 16 is from normal application, it is recommended that only the surface soil samples be analyzed for pesticides.

10. Figure 9 Proposed Sampling Locations Site 07 - Pesticide Storage Area and Site 10 - Bus Painting Shop, p-147

Please identify Site 07 and Site 10 on Figure 9.

11. Appendix E Preliminary Conceptual Model, p-E25

Figure E-2 Preliminary Conceptual Model/Migration Pathways - Treasure Island

As long a pathway exists regardless of it's potential for

exposure, it should be identified as "Potential For Impact to Receptors". It is recommended that the receptors identified as "Low Likelihood for Exposure" be relabeled as "Potential For Impact to Receptors".

Each "Exposure Point" should be delineated by exposure routes. For example, "Surface Soil" should include the exposure routes of inhalation, dermal contact and ingestion.

Comparison of Quantitation Limits with RBC and Ecological Risk Criteria for Soils

Analyte	CAS No.	RBC** mg/kg	Eco-Tox Crit. mg/kg	QL mg/kg	Analytical Method
Volatile Organics					
Benzene	71-43-2	0.9	31.3	0.5	CLP-VOA
Toluene	108-88-3	48.4	2970	0.5	CLP-VOA
Ethylbenzene	100-41-4	55.8	159	0.5	CLP-VOA
Xylene (total)	1330-20-7	17.2	2380	1.0	CLP-VOA
2-Butanone (MEK)	78-93-3	2770	9600	0.5	CLP-VOA
4-methyl-2-pentanone (MIBK)	108-10-1	-	5000	0.5	CLP-VOA
Carbon tetrachloride	56-23-5	**0.28**	7780.0	0.5	CLP-VOA
Methylene Chloride	75-09-2	6.4	78	0.5	CLP-VOA
Trichloroethene (TCE)	79-01-6	4.65	238	0.5	CLP-VOA
1,1,2,2-Tetrachloroethane	79-34-5	0.6	848	0.5	CLP-VOA
1,1,1-Trichloroethane (TCA)	71-55-6	54.3	37700	0.5	CLP-VOA
Tetrachloroethene	127-18-4	3.51	186	0.5	CLP-VOA
Chlorotrifluoromethane (Freon 13)		-	-	*	CLP-VOA
1,1,2-trichloro-1,2,2-trifluoroethane (Freon 113)	76-13-1	68.8	-	0.5	CLP-VOA
Methyl tert-butyl ether	1634-04-4	156	-	0.5	CLP-VOA
Semivolatile Organics					
Naphthalene	91-20-3	12.4	546	0.33	CLP-SV
2-methylnaphthalene	91-57-6	-	-	0.33	CLP-SV
Acenaphthylene	208-96-8	-	-	0.33	CLP-SV
Acenaphthene	83-32-9	5.56	-	0.33	CLP-SV
Fluorene	86-73-7	4.76	-	0.33	CLP-SV
Pyrene	129-00-0	1170	746	0.33	CLP-SV
Benzo(a)anthracene	56-55-3	0.39	26	0.33	CLP-SV
Chrysene	218-01-9	39	-	0.33	CLP-SV
Benzo(b)fluoranthene	205-99-2	0.39	53	0.33	CLP-SV
Benzo(k)fluoranthene	207-08-9	0.39	960	0.33	CLP-SV
Benzo(a)pyrene	50-32-8	***0.039***	133	0.33	CLP-SV
Benzo(g,h,i)perylene	191-24-2	-	-	0.33	CLP-SV
Indeno(1,2,3-cd)pyrene	193-39-5	0.39	-	0.33	CLP-SV
Dibenz(a,h)anthracene	53-70-3	***0.039***	-	0.33	CLP-SV
Phenol	108-95-2	18700	400	0.33	CLP-SV
2-Chlorophenol	95-57-8	-	1780	0.33	CLP-SV
2-Methylphenol	95-48-7	-	5330	0.33	CLP-SV
4-Methylphenol	106-44-5	-	7330	0.33	CLP-SV
2-Nitrophenol	88-75-5	-	1540	0.33	CLP-SV
2,4-Dimethylphenol	105-67-9	-	9100	0.33	CLP-SV
2,4-Dichlorophenol	120-83-2	-	1540	0.33	CLP-SV
4-chloro-3-Methylphenol	59-50-7	-	115	0.33	CLP-SV
2,4,6-Trichlorophenol	88-06-2	-	-	0.33	CLP-SV
2,4,5-Trichlorophenol	95-95-4	-	6660	0.8	CLP-SV
2,4-Dinitrophenol	51-28-5	-	133	0.8	CLP-SV
4-Nitrophenol	100-02-7	-	557	0.8	CLP-SV
4,6-Dinitro-2-methylphenol	534-52-1	-	25	0.8	CLP-SV
Pentachlorophenol	87-86-5	-	36	0.8	CLP-SV
2-Nitroaniline	88-74-4	2.34	1160	0.8	CLP-SV
3-Nitroaniline	99-09-2	-	2400	0.8	CLP-SV
4-Nitroaniline	100-01-6	-	833	0.8	CLP-SV
2,4-Dinitrotoluene	121-14-2	78	9.4	0.33	CLP-SV

* To be determined

**Lower value of two RBC (child resident RBC for noncancer or residential RBC for cancer)

TABLE 3.3 – COMPARISON OF QUANTITATION LIMITS WITH RISK BASED CRITERIA AND ECOLOGICAL RISK CRITERIA FOR SOILS
PAGE 3-12

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Comparison of Quantitation Limits with RBC and Ecological Risk Criteria for Soils

Analyte	CAS No.	RBC** mg/kg	Eco-Tox Crit. mg/kg	QL mg/kg	Analytical Method
2,6-Dinitrotoluene	606-20-2	0.42	32	0.33	CLP-SV
Hydroquinone	123-31-9	1250	-	0.8	CLP-SV
Pesticides & PCBs					
alpha-Chlordane	5103-71-9	0.173	0.8	0.0017	CLP-Pest
gamma-Chlordane	5103-74-2	0.173	200	0.0017	CLP-Pest
Aroclor-1016	12674-11-2	-	2.4	0.033	CLP-Pest
Aroclor-1221	11104-28-2	***0.047***	2860	0.067	CLP-Pest
Aroclor-1232	11141-16-5	0.047	2660	0.033	CLP-Pest
Aroclor-1242	53469-21-9	0.047	2130	0.033	CLP-Pest
Aroclor-1248	12672-29-6	0.047	2130	0.033	CLP-Pest
Aroclor-1254	11097-69-1	0.047	1.0	0.033	CLP-Pest
Aroclor-1260	11096-82-5	0.047	266	0.033	CLP-Pest
Organophosphorus Pesticides					
chlorpyrifos	2921-88-2	93.7	0.4	0.033	8141
Diazinon	333-41-5	28.1	1.33	0.067	8141
Dichlorvos	62-73-7	0.774	0.44	0.265	8141
Dimethoate	60-51-5	6.24	66.7	0.1	8141
Malathion	121-75-5	624	66.6	0.033	8141
Herbicides					
2,4-D	94-75-7	312	413	0.24	8151
2,4,5-T	93-76-5	312	286	0.04	8151
2,4,5-TP	93-72-1	250	1820	0.04	8151
2,4-DB	94-82-6	250	477	0.2	8151
Dalapon	75-99-0	937	200	1.2	8151
Dicamba	1918-00-9	937	253	0.06	8151
Dichlorprop	120-36-5	-	369	0.12	8151
Dinoseb	88-85-7	31.2	66.7	0.02	8151
MCPA	94-74-6	15.6	1330	50	8151
MCPP	93-65-2	31.3	866	40	8151
Carbamates					
Carbaryl	63-25-2	3120	-	0.1	8318
Propoxur	114-26-1	125	-	0.125	8318
Triazines					
Promethone	1610-18-0	468	-	0.1	619
Misc					
Ethylene glycol	107-21-1	78000	-	40	8015
Lead (organic)				0.5	Ca LUFT

* To be determined

**Lower value of two RBC (child resident RBC for noncancer or residential RBC for cancer)

TABLE 3.3 – COMPARISON OF QUANTITATION LIMITS WITH RISK BASED CRITERIA AND ECOLOGICAL RISK CRITERIA FOR SOILS
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Comparison of Quantitation Limits with RBC and Ecological Risk Criteria for Soils

Analyte	CAS No.	RBC** mg/kg	Eco-Tox Crit. mg/kg	QL mg/kg	Analytical Method
Metals					
Aluminum	7429-90-5	71100	113	20	CLP-M
Antimony	7440-36-0	28.4	10	6	CLP-M
Arsenic	7440-38-21	***0.3***	15	1	CLP-M
Barium	7440-39-3	1520	***3.3***	20	CLP-M
Beryllium	7440-41-7	***0.13***	7.2	0.5	CLP-M
Cadmium	7440-43-9	26.5	***0.05***	0.5	CLP-M
Chromium (total)	7440-47-3	71100	6.1	1	CLP-M
Cobalt	7440-48-4	4540	***0.67***	5	CLP-M
Lead (Inorganic)	7439-92-1	-	15	0.3	CLP-M
Silver	7440-2204	356	2	1	CLP-M
Vanadium	7440-62-2	498	9.3	5	CLP-M
Zinc	7440-66-6	21300	70	2	CLP-M
Chromium (VI)	18540-29-9	4	-	0.5	7196
Anions					
Cyanide	57-12-5	1420	-	1	CLP-M
Sulfate	-	-	-	1	9056
Chloride	68188-88-5	-	-	1	9056

* To be determined
**Lower value of two RBC (child resident RBC for noncancer or residential RBC for cancer)