

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD

SAN FRANCISCO BAY REGION

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Mr. Stephen Chao  
WestDiv Engineer in Charge  
Department of the Navy  
Naval Facilities Engineering Command  
900 Commodore Way, Bldg. 101  
San Bruno. CA 94066-0720

April 26, 1993  
File No. 2189.8009 [EA]

Subject: Comments on the Horizontal Conduit Study Draft Field Work Plan, March 23, 1993

Dear Mr. Chao:

The following comments are based on the San Francisco Bay Regional Water Quality Control Board staff's review of the subject document. Though the title page of this document referred to this report as a "Final" work plan, the Navy has stated that it is a draft work plan and will submit a new title page to all agencies for the administrative record.

General Comments:

The horizontal conduit study is an opportunity to evaluate the pathways of contamination transport on site. Our agency is concerned with not only contaminant transport within Moffett Field, but any potential for contamination to be leaving the site through horizontal conduits. Pathways within the site and exiting the site should be part of the potential conduit evaluation during phase I, and be used to inform the decisions regarding sampling points during phase II. How will the data from Phase I be reported? The work plan for phase II sampling should include rationale for sampling points based on the findings from phase I.

This work plan needs to include an evaluation of horizontal conduits for contaminants other than just total petroleum hydrocarbons (TPH) and volatile organic compounds (VOCs). There is data which shows the presence of PCBs in the sediments within the storm water retention ponds at the end of Zook Road and Lindburg Avenue and within the sediments outside building 191 pump station in the Navy Channel. Both these areas have been subject to storm water discharges and potential sources for this contamination should be included within the scope of this study. Pesticides have been detected in the soil and sediment samples taken from the Lindburg ditch and the storm water retention pond. The sources of these contaminants may be from storm drains acting as a horizontal conduit. All soil and sediment samples in this area should be analyzed for both pesticides and PCBs.

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In addition, the sediment samples taken from the storm sewers should be analyzed for metals. Since Moffett Naval Air Station is a closing base, it is essential to conduct sampling and analyses to evaluate the storm sewer's contents in order to remediate any contamination present before transfer of the base occurs.

Please provide some rationale as to why this study focuses primarily on the western side of the base. What is the potential for contaminants to migrate through horizontal conduits on the eastern side of the base. Both the east and west sides of the runway are subject to drainage structures and other potential conduits.

#### Specific Comments:

pg. 6, section 5.1 Phase I should evaluate the flow patterns of sediments and effluent within the storm and sewer lines, past and present discharge areas, and areas of sediment accumulation, as well as mapping the location of the system. Some analysis and evaluation of source pathways should also be included in the scope of phase I.

pg. 19, section 5.1.2 Water samples being collected from the manhole inverts and sanitary sewer during phase I should not be composited. The potential for volatilization of possible contaminants is too great to composite the samples. Water samples should also be analyzed for metals with detection limits which comply with the effluent limitation values for fresh water aquatic life on the enclosed table. These values are from the San Francisco Bay Basin Water Quality Control Plan.

Are any sediment samples being taken from the sewers or manhole areas in phase I?

pg. 21, section 5.2.1 Please clarify how the field team will determine whether a suspected fuel source exists in order to gather soil and sediment samples for TPH analysis? Will this be accomplished by field screening or by some other means?

Which EPA CLP method will be used to analyze VOCs in the soil and sediment samples? Soil and sediment samples should also be analyzed for metals and PCBs and Pesticides in areas which may be a potential source pathway for the PCB and pesticide contamination already documented.

pg. 22, section 5.2.2 Please clarify which method will be used to analyze the water samples?

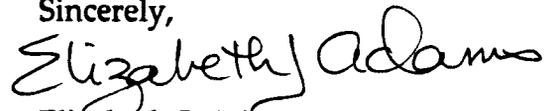
pg. 27, section 6.1.2 These soil samples should also be analyzed for PCBs in areas which may be a source to the present PCB contamination.

pg. 28, section 6.2.2 This section needs more detail. The PRC SOP 6 outlines several methods for sediment sampling. The agencies need to know the methods which will be used in obtaining sediment samples from the various sample points: storm and sewer

lines, manholes, utility lines, and any outfall areas which may be included in the scope of work.

If you have any questions or concerns, please feel free to call me at the San Francisco Bay Regional Water Quality Control Board at (510) 286-3980.

Sincerely,



Elizabeth J. Adams  
Project Manager

cc: Cyrus Shabahari, DTSC

Michael Gill, US EPA Region IX  
MS H-9-2

**TABLE IV-1A: SHALLOW WATER EFFLUENT LIMITATIONS (UG/L)**

CHEMICAL NAME	FRESH WATER		MARINE WATER	
	HUMAN HEALTH	AQUATIC LIFE	HUMAN HEALTH	AQUATIC LIFE
	30-day Average	Daily Average	30-day Average	Daily Average
1,2 DICHLOROBENZENE (a)	2700		18000	
1,3 DICHLOROBENZENE	400		2600	
1,4 DICHLOROBENZENE	9.9		64	
2,4 DICHLOROPHENOL	0.3			
2,4,6 TRICHLOROPHENOL	0.34		1	
4-CHLORO-3-METHYLPHENOL	3000			
ALDRIN	0.0001		0.0001	
ARSENIC	5	190		38
A-BHC	0.004		0.01	
BENZENE	0.34		21	
B-BHC	0.01		0.05	
CADMIUM	10	1.1		9.3
CHLORDANE (a)	0.0001	0.004	0.0001	0.004
CHLOROFORM	100		480	
CHROMIUM VI (b)	50	11		50
COPPER	1000	11.8		2.9
CYANIDE (c)		5.2		1
DDT (a)	0.0006	0.001	0.0006	0.001
DICHLOROMETHANE	4.8		1600	
DIELDRIN	0.0001	0.002	0.0001	0.002
ENDOSULFAN (a)	0.9	0.08	2	0.009
ENDRIN (a)	0.8	0.002	0.8	0.002
FLUORANTHENE	42		42	
G-BHC (LINDANE)	0.02	0.08	0.062	0.16

**TABLE IV-1A: SHALLOW WATER EFFLUENT LIMITATIONS (UG/L)**

HALOMETHANES (a)	100		480	
HEPTACHLOR	0.0002	0.004	0.0002	0.004
HEPTACHLOR EPOXIDE	0.0001		0.0001	
HEXACHLOROBENZENE	0.0007		0.0007	
LEAD	50	3.2		5.6
MERCURY	0.01	2.4	0.03	2.1
NICKEL	600	160	4600	8.3
PAHS (a)	0.003		0.03	15
PCBS (TOTAL) (a)	0.0001	0.01	0.0001	0.03
PENTACHLOROPHENOL	0.28	9.5	8.2	7.9
PHENOL	300		30	
SELENIUM	10	5		5
SILVER	50	4		2.3
TCDD EQUIVALENTS (a)	1E-08		1E-08	
TOLUENE	10000		300000	
TOXAPHENE	0.0007	0.0002	0.0007	0.0002
TRIBUTYL TIN		0.02	0.005	0.01
ZINC	5000	110		86

(a) See SWRCB definition of terms

(b) Dischargers may, at their option, meet this limitation as total chromium

(c) Dischargers may, at their option, demonstrate compliance with this limitation by measurement of weak acid dissociable cyanide

Cd, Cu, Pb, Ni, Ag, & Zn fresh water limits calculated at hardness = 100 mg/l as CaCO<sub>3</sub>

Pentachlorophenol limit calculated at pH = 7.5

Concentrations of order 0.01 ug/l (10 ppt) have been rounded to one significant figure.