

DEPARTMENT OF HEALTH SERVICES
TOXIC SUBSTANCES CONTROL PROGRAM
2151 BERKELEY WAY, ANNEX 9
BERKELEY, CA 94704

N00236.000389
ALAMEDA POINT
SSIC NO. 5090.3



6 November, 1989

Captain Roger Boenninghousen, USN
Commanding Officer
Naval Air Station
Alameda, CA 94501-5000

Dear Captain Boenninghousen:

REVIEW OF PUBLIC HEALTH AND ENVIRONMENTAL EVALUATION PLAN (PHEE)

Enclosed please find specific comments on the above-referenced Plan. When the comments have been addressed, the Department will approve the Preliminary PHEE for Naval Air Station Alameda.

Please respond to the Departments comments on a point-by-point basis and add comments and responses as an appendix to the Final PHEE.

If you have any questions, please contact Mr. Mark Malinowski, (415) 540-3591. Thank you for your cooperation.

SINCERELY,

A handwritten signature in cursive script that reads "Mark Malinowski".

Mark Malinowski
Engineering Geologist
Region 2
Toxic Substances Control Program

ENCLOSURE

cc: See Attached List

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IN CODE 181

ALAMEDA NAVAL AIR STATION
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Memorandum

To : Mark Malinowski
Don Cox
Region II, TSCP
5850 Shellmound Avenue
Emeryville, CA

Date : September 12, 1989

Subject: Public Health & Environment
Evaluation, NAS Alameda

From : Toxic Substances Control Program
Technical Services
400 P Street
Sacramento

The following is provided in response to a technical services request made by M. Malinowski for evaluation of the revised document, "Public Health and Environmental Evaluation Plan. Remedial Investigation/ Feasibility Study, Naval Air Station, Alameda, Alameda, California, Volume 7", June, 1989, submitted by the Department of the Navy, Western Division, Naval Facilities Engineering Command [Project Code 200004, Work Phase 00].

General Comment

It is the nature of a preliminary investigation, which the revised PHEE plan represents, to be an initial scope of the extent of the problems and issues presented by a regulated hazardous waste site. The extent of the characterization of a complicated site, such as that represented by NAS Alameda, that it is difficult to state precisely at the outset what exact steps will be taken to address the problems.

The authors of the PHEE submitted by NAS Alameda have made a good faith effort to address those points itemized in the initial review of the manuscript (attached); however, at that time, this reviewer was under the impression that the authors would return a point-by-point review and discussion of the original review, stating wherein their concurrence with those points they agree and literature citations to those points with which they objected. To date, such a summary has not been forthcoming. Nevertheless, those sections with which this reviewer found inadequate have been improved substantially and it is the recommendation of this reviewer that the document be accepted after considering the following minor comments as the preliminary PHEE and that efforts outlined in the remedial investigation proceed without undue delay. It is recognized by this reviewer that the NAS Alameda site will be maintained under continuous supervision by CDHS risk managers and that depending upon the findings of the site characterization, the unspecified and preliminary nature of the present PHEE will become focused more directly upon the key problems at this complicated site.

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Specific Comment:

1. Errors persist in the document. One of the most important issues at this site will be the extent and nature of groundwater contamination; note on p. 5-3 that DHS considers California MCLs as ARARs. Table 5-1 must be revised; note that the tetrachloroethylene MCL is incorrectly listed as 2 ppb. Attached find a list of the most current California MCL values; ALL CALIFORNIA AND FEDERAL MCLs should be given in Table 5-1. It is virtually useless to list - as pointed out in the initial review - categories for aviation fuel, gasoline, and oil & grease; the authors are well aware of the procedures for establishment of Safe Drinking Water Act and California MCLs and know that these values are not set for complex mixtures. Delete those categories; insert all anticipated values including the California Proposed Maximum Contaminant Level values of which 12 will be held up for public hearing on October 11, 1989 in Sacramento for a number of the chemicals of concern here (e.g., trans-1,2-dichloroethylene, DEHP, chlordane, heptachlor, etc). A list of those is attached; these values will be promulgated during investigation and remediation of NAS alameda and the plan for those activities should take the existing and reasonably anticipated ARARs into account.

To this same end, the reviews of the literature concerning the toxicology and environmental fate and transport (Chapters 3 and 4), although very brief (likely reflecting the "boilerplate" nature of many such documents) are judged adequate but not outstanding in their content. The only revision requested here is to list at the conclusions to each chemical summary - where ACGIH-derived OSHA values which cannot be utilized for environmental exposure criteria are presented - that the appropriate primary or secondary MCL values be listed. In addition, the summary would be more complete should the authors list the CDHS AAL values for air and water where such values have been published.

2. Sections 6 and 7 have been improved and the authors should be commended for their efforts in this regard.

3. p. 3-6. The sentence, "The subsequent risk characterization will focus only on these selected indicator chemicals." , is the most troublesome statement in the text. On Table 2-9, p. 2-60, no mention is made of the ordnance, the infectious wastes from Oak Knoll Naval Hospital or the identity and extent of the agents in the tear gas said to be buried (p. 2-20) at the West Beach Sanitary Landfill. TNT will be an important indicator chemical should it be found at the site because it has recently been demonstrated to be a rodent carcinogen in an NTP bioassay; mitigation activities could very well uncover and/or release these and other wastes or release the buried tear gas. These agents should not be dropped from consideration, particularly in the early stages of the plan such as the present PHEE.

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4. p. 2-49, top paragraph. Insert California MCL values for gross alpha and gross beta and compare the monitoring well data to the MCLs.

5. Table 2-5, 2-6. Please insert EPA Lifetime Health Advisory Values for those compounds that do not have formal MCLs; please insert a column of promulgated and anticipated California and Federal MCLs for those chemicals detected in the 1985 ground water samples.

6. p. 2-61. Area 97. Specific mention of the hexane analyses should be made here.

7. p.2-6. Bldg. 546? Please describe the current status of the two fiberglass gasoline tanks. Are they in current use and leaking, if so, why have not steps been taken to correct the situation - or are they filled with sand? Do these and the tanks discussed just prior to this section contain petroleum products? The text is not clear.

8. The leaking NAS fuel and other tanks are real problems; one has only to review the fire and explosion history in the sewers and manholes to get an idea of the magnitude of the quantities of flammable fuels and/or solvents spilled at the site; for those areas, the benzene and hexane are expected by this reviewer to drive the human health risk assessments. One of the uncertainties not listed (at least as far as this reviewer could find) is whether or not these spilled organic chemicals have dissolved other organics, such as would be expected to be found in waste crankcase oils, and driven otherwise only slowly mobile PAH and other compounds into groundwater.

9. The document needs a more specific table of contents; the reader is forced to dig through the entire text without useful guidance to find any particular item of interest. Again, this reviewer requests the authors provide an index to the topics covered. The document has not been proofread with sufficient attention to detail; why is it that numerous blank pages are bound in the text?

10. p. 3-6. Insert Human Receptor Identification. Does not the section refer only to humans? This section concerns only human health endpoints; one does not move on to environmental receptors until task 5.0 with a definite scope of the plan until Chapter 6 concerning the response to CDHS comments on environmental and endangered species.

11. p. 2-25. As the Pan Amercian well showed elevated manganese and mercury in 1977, not only should Hg be measured, but all priority water pollutants and all mentioned indicator chemicals should be studied in this well water during any future field work.

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12. Section 4.0, p. 4-2. What is the basis for the sentence, "Chemicals with Kow less than 3 are generally considered not to concentrate in animal tissues."? Please provide a reference to substantiate this contention.

13. p. 2-5, top line. What steps does the Navy intend to take to mitigate the leaking in those underground tanks identified as "currently leaking"? Are the abandoned tanks with suspected leaks at Bldg. 459 "currently leaking"? What, exactly, is the status of the Bldg. 459 waste oil tank?

14. P. 3-20. The review on cis- and trans-1,2-dichloroethylenes is clearly inadequate. The authors are directed to Lawrence Livermore National Laboratory documents UCRL-21063 and UCRL-21062, "Health Risk Assessment of cis (or trans)-1,2-dichloroethylene in California Drinking Water" by B. Mallon et al. and L.C. Hall et al. (respectively), June 27, 1988 for a comprehensive review of the applicable literature.

15. The organization of the text leaves something to be desired. What, for example, is the utility of having two pages 3-6? Why can't the manuscript be page numbered in a consecutive fashion and the text printed on both sides of the paper?

16. Page 3-6. What is the justification for the statement, "Typically, chemicals with a mean concentration less than twice (2x) background concentrations may be eliminated from consideration"? Can this actually be the case, particularly in areas of widespread environmental contamination as with lead? A reference [regulatory proceedings, publication in the open, peer-reviewed scientific literature, etc.] is needed to support such a potentially troublesome statement is needed.

17. Section 4.0, REFERENCES. This reviewer objects strongly to the use of Personal Communications as a reference; how is an interested party to check, particularly in the circumstance of litigation, the accuracy of a telephone conversation with John Christopher in 1988? Delete or replace with a reference to a written memorandum or citable letter.

17. Table 2-2. Insert a footnote to the current California chromium MCL in order that the reader can compare the WA-6 well water chromium concentration to the 50 ppb value.



Calvin C. Willhite, Ph.D.

REVISION RECORD FOR REGISTER 89, No. 26
(July 1, 1989)

TITLE 22. SOCIAL SECURITY

DIVISION 4. ENVIRONMENTAL HEALTH

This part of Register 89, No. 26, contains all the additions, amendments, and repeals affecting the above-entitled portion of the California Code of Regulations which were filed with the Secretary of State from 6-24-89, to and including 7-1-89. The latest prior register containing regulations of the above agency is Register 89, No. 22 (6-3-89).

It is suggested that the section numbers listed below as well as the page numbers be checked when inserting this material in the code and removing the superseded material. In case of doubt rely upon the section numbers rather than the page numbers since the section numbers must run consecutively. It is further suggested that superseded material be retained with this revision record sheet so that the prior wording of any section can be easily ascertained.

SECTION CHANGES

The section listed below is amended herein.

64444.5

PAGE CHANGES

Remove
Old Pages
1713-1714

Insert
Attached Pages
1713-1714

(Precedes page 1713, Title 22)

Table 5
Maximum Contaminant Levels
Organic Chemicals

Constituent	Maximum Contaminant Level, mg/l
(a) Chlorinated Hydrocarbons	
Endrin	0.0002
Lindane	0.004
Methoxychlor	0.1
Toxaphene	0.005
(b) Chlorophenoxy	
2,4-D	0.1
2,4,5-TP Silvex.....	0.01
(c) Synthetics	
Atrazine	0.003
Bentazon	0.018
Benzene	0.001
Carbon Tetrachloride	0.0005
Dibromochloropropane	0.0002
1,4-Dichlorobenzene	0.005
1,2-Dichloroethane	0.0005
1,1-Dichloroethylene	0.006
1,3-Dichloropropene	0.0005
Ethylbenzene	0.680
Ethylene Dibromide	0.00002
Molinate	0.02
Monochlorobenzene	0.030
Simazine	0.010
1,1,2,2-Tetrachloroethane	0.001
Tetrachloroethylene	0.005
Thiobencarb	0.07
1,1,1-Trichloroethane	0.200
1,1,2-Trichloroethane	0.032
Trichloroethylene	0.005
Vinyl Chloride	0.0005
* Xylenes.....	1.750

* MCL is for either a single isomer or the sum of the isomers.

NOTE: Authority cited: Sections 208 and 4026, Health and Safety Code. Reference: Sections 4017 and 4024, Health and Safety Code.

HISTORY:

1. New section filed 11-22-88; operative 12-22-88 (Register 89, No. 6).
2. New subsection (c) filed 1-26-89; operative 2-25-89 (Register 89, No. 6).
3. Amendment of subsection (c) filed 1-26-89; operative 2-25-89 (Register 89, No. 6).
4. Amendment of subsection (c) adding Ethylene Dibromide filed 1-26-89; operative 2-25-89 (Register 89, No. 6).
5. Amendment of subsection (c) filed 3-2-89; operative 4-1-89 (Register 89, No. 11).
6. Amendment of subsection (c) filed 3-6-89; operative 4-5-89 (Register 89, No. 11).
7. Amendment of subsection (c) (Table 5) filed 4-28-89; operative 5-28-89 (Register 89, No. 18).
8. Amendment of subsection (c) (Table 5) filed 6-26-89; operative 7-26-89 (Register 89, No. 26).

Table 1

PROPOSED FEDERAL PRIMARY DRINKING WATER REGULATIONS

May 89

Contaminants	Federal Proposed MCL (mg/L)	State Existing/Proposed MCL (mg/L)
INORGANICS		
Asbestos	7 million fibers/liter	
Barium	5.	1.
Cadmium	0.005	.01
Chromium	0.1	.05
Mercury	0.002	.002
Nitrate	10.	45.
Nitrite	1.	
Selenium	0.05	.01
VOLATILE ORGANICS (Solvents)		
cis-1,2-Dichloroethylene	0.07	.006
1,2-Dichloropropane	0.005	.005
Ethylbenzene	0.7	.680
Monochlorobenzene	0.1	.03
p-Dichlorobenzene	0.6	.005
Styrene	0.005/0.1 ¹	
Tetrachloroethylene	0.005	.005
Toluene	2.	
trans-1,2-Dichloroethylene	0.1	.01
Xylenes	10.	1.750
PESTICIDES/HERBICIDES/PCBs		
Alachlor	0.002	
Aldicarb	0.01	
Aldicarb sulfoxide	0.01	
Aldicarb sulfone	0.04	
Atrazine	0.003	.003
Carbofuran	0.04	.018
Chlordane	0.002	.0001
Dibromochloropropane (DBCP)	0.0002	.0002
2,4-D	0.07	0.1
Ethylene dibromide	0.00005	.00002
Heptachlor	0.0004	.00001
Heptachlor epoxide	0.0002	.00001
Lindane	0.0002	.004
Methoxychlor	0.4	.1
PCBs	0.0005	
Pentachlorophenol	0.2	
Toxaphene	0.005	.005
2,4,5-TP (Silvex)	0.05	.01
DRINKING WATER TREATMENT CHEMICALS		
Acrylamide	² Treatment Technique	
Epichlorohydrin	² Treatment Technique	

¹ EPA proposes a dual MCLG/MCL for styrene. After public comment a single MCLG and MCL will be set.

² Treatment technique requirement limits the amount of the chemical which is used to treat drinking water.