

DEPARTMENT OF TOXIC SUBSTANCES CONTROLREGION 2
700 HEINZ AVE., SUITE 200
BERKELEY, CA 94710-2737

July 25, 1995

Commander
Department of the Navy
Engineering Field Activity, West
Naval Facilities Engineering Command
Attn: Mr. Stephen Chao, Project Manager
900 Commodore Drive, Bldg. 101
San Bruno, California 94066-2402

Dear Mr. Chao:

DRAFT FINAL PHASE II SITE-WIDE ECOLOGICAL ASSESSMENT (SWEA) WORK PLAN, MOFFETT FEDERAL AIRFIELD

The Department of Toxic Substances Control (DTSC) and the San Francisco Regional Water Quality Control Board (RWQCB) have reviewed the subject document and prepared following comments for your consideration. If you have any questions, please contact me at (510) 540-3830.

Sincerely,

A handwritten signature in black ink, appearing to read "C. Joseph Chou".

C. Joseph Chou
Remedial Project Manager
Base Closure Unit
Office of Military Facilities

Enclosures

cc:

Mr. Michael Bessette
Regional Water Quality Control Board
2101 Webster Street, Suite 500
Oakland, California 94612

Mr. Michael D. Gill
U.S. Environmental Protection Agency
Region IX, Mail Stop H-9-2
75 Hawthorne St.
San Francisco, California 94105

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Mr. Stephen Chao
July 25, 1995
Page 2

Mr. Bob Radovich
Environmental Specialist/Wetlands Coordinator
Department of Fish and Game
Environmental Services Division
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Mr. Jim Haas, Ph.D.
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Sacramento, CA 95821

Ms. Sandy Olliges
Assistant chief
Safety, Health and Environmental Services
National Aeronautics and Space Administration
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Moffett Field, CA 94035-1000

Mr. Peter Strauss
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Ms. Laura Valoppi
Dept. of Toxic Substances Control
Office of Scientific Affairs
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Sacramento, CA 95812-0806

Ms. Myrto Petreas, Ph.D.
Dept. of Toxic Substances Control
Hazardous Materials Laboratory
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DEPARTMENT OF TOXIC SUBSTANCES CONTROL

400 P STREET, 4TH FLOOR

P.O. BOX 806

SACRAMENTO, CA 95812-0806



(916) 327-2513

MEMORANDUM

TO: C. Joseph Chou
Office of Military Facilities
Region 2
700 Heinze Avenue, Suite 200
Berkeley, California 94710

FROM: Laura M. Valoppi, M.S.
Associate Toxicologist *LM Valoppi*
Office of Scientific Affairs

DATE: July 21, 1995

SUBJECT: NAS Moffett Field, Draft Final Phase II SWEA WorkPlan
OC = 02, PCA = 14740, Site = 200068/45, HZ34

The Human and Ecological Risk Section (HERS) in the Office of Scientific Affairs (OSA) was requested by Region 2, Office of Military Facilities, to review the Response to Comments (dated May 19, 1995) and the Draft Phase II Site-Wide Ecological Assessment (SWEA) Work Plan, dated May 19, 1995, prepared by PRC Environmental Management, Inc., and Montgomery Watson, for Moffett Federal Airfield (Moffett Field).

GENERAL COMMENTS

HERS has previously reviewed and commented on the Draft Workplan in a memorandum dated March 28, 1995. At that time HERS only commented on the time-critical aspects of the workplan related to the sediment sampling and bioassays. The Response to Comments has adequately addressed HERS comments on those aspects of the draft workplan.

Other aspects of the draft or draft final workplan had not been commented on by HERS because we are currently participating in working discussions of these issues. The remaining issues include: evaluation of VOCs in owl burrows, refinement of measurement



endpoints, indicator PAHs, exposure pathways and routes for vertebrate species, establishment of toxicity reference values for vertebrate species, modeling of bioconcentration and bioaccumulation to higher trophic levels, evaluation of multiple contaminants and multiple exposure pathways, and evaluation/interpretation of bioassay results. It is HERS understanding that resolution of these topics reached at meetings will be written up into technical memorandum which will be included as an appendix to the final Phase II workplan.

SPECIFIC COMMENTS

1. It is HERS understanding that the preliminary evaluation of the sediment bioassay data has not yet revealed a correlation between chemical concentrations and toxicity. The chemistry data from the Phase II sampling effort has not yet been received by HERS, but we are recommending that evaluation of a correlation between chemistry and toxicity not be restricted to the list of COEPCs in Table 2-1. HERS request that the evaluation of the toxicity data be expanded to include evaluation of the "eliminated" chemicals of potential ecological concern (COEPCs). We are requesting this because, a) some chemicals have been eliminated as COEPCs based upon "low toxicity" without adequate documentation; and b) lower detection limits in the Phase II sampling. For example, aldrin, heptachlor, BHC, endosulfan II, and endosulfan sulfate have been eliminated as COEPCs in wetland sediments based on "low frequency of detection", and lack of ER-L values. As another example, azinphos methyl has been eliminated as a COEPC based on "low toxicity". Please refer to HERS memoranda dated August 17, 1994 and January 11, 1995 regarding Phase I SWEA COEPCs.
2. Page 2-10 indicates flux ponds (near IRP Sites 4 and 6) and the Lindbergh Avenue storm-drain channel have received "relatively high chemical loads". Apparently the remediation of the Lindbergh Avenue channel has begun, but the closing of the flux ponds has been delayed due to occupation of burrowing owls near the flux ponds. Neither of these areas are being addressed in the Phase II SWEA. HERS recommends that OMF consult with the California Department of Fish and Game concerning damages to natural resources in these areas.
3. Page 2-12 indicates only the inhalation pathway will be evaluated for burrowing owl; however Figure 3-1 and page 3-2 indicates the ingestion of contaminated invertebrates by burrowing owl will also be evaluated. It is HERS understanding from workgroup meetings that the Navy has agreed to evaluate food-chain pathways for the burrowing owl.
4. Table 2-1 should include PAHs as COEPCs because this has been agreed to previously.
5. Page 3-2 indicates the evaluation of the red fox as a representative species is eliminated since the fox has a "similar prey base as the kestrel". HERS requests that the differences between pathway exposure factors (ingestion rate, body weight, etc.) between the kestrel and fox be evaluated in the Phase II SWEA, and that differences in toxicity between mammalian

C. Joseph Chou
July 21, 1995
Page 3

and avian species be discussed in a section on uncertainty. In this way the implicit assumption that impacts on the kestrel can be used to represent the fox are documented.

6. The direct toxicity to terrestrial plants and invertebrates is not addressed. Page 15 of the Response to Comments indicates the Navy is proposing to conduct earthworm tissue residue analysis and modeling of soil-to-plant tissue residues. While tissue residues are necessary to estimate prey item residues for higher trophic level organisms, they cannot be used to evaluate direct toxicity on terrestrial plants or invertebrates. In earlier discussions on the Phase II workplan, use of terrestrial plant and invertebrate toxicity tests were proposed, but this exposure pathway was eliminated because it was believed that there were no COEPCs in the non-landfill upland areas. However, more recent data evaluations indicate these chemical are present in the non-landfill upland, and therefore a complete exposure pathway exists.

SUMMARY

The response to comments adequately addresses HERS previous comments regarding the sampling and bioassay portions of the draft Phase II SWEA workplan. The remaining issues, as noted above, should be resolved in workgroup meetings, and documented in technical memorandum which will be appended to the final workplan.

If you have any questions on these comments, please contact me at CALNET 8-467-2513.

Peer Review: Michael J. Wade, Ph.D., 
Senior Toxicologist

cc: Clarence Callahan, Ph.D.
U.S. Environmental Protection Agency
75 Hawthorne Street
San Francisco, CA 94105-3901

Jim Haas
U.S. Fish and Wildlife Service
2800 Cottage Way, Room E1803
Sacramento, CA 95825

Susan Gladstone
San Francisco Regional Water Quality Control Board
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Oakland, CA 94612

C. Joseph Chou

July 21, 1995

Page 4

Denise Klimas

Coastal Resources Coordinator

National Oceanic and Atmospheric Administration

c/o U.S. Environmental Protection Agency (H-1-2)

75 Hawthorne Street

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Michael Martin, Ph.D.

California Department of Fish and Game

20 Lower Ragsdale Road, Suite 100

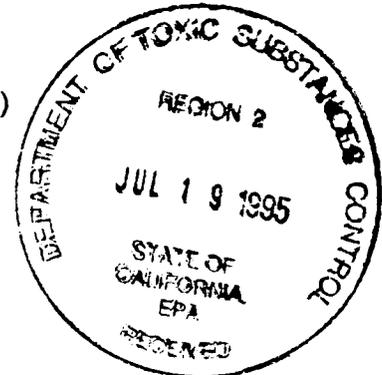
Monterey, CA 93940

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION
2101 WEBSTER STREET, SUITE 500
OAKLAND 94612

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July 17, 1995
File No. 2189.8009(sfg)



Mr. Joseph Chou
Remedial Project Manager
Department of Toxic Substances Control
700 Heinz Avenue, Suite 200
Berkeley, CA 94710-2737

- Subject:
- 1) Response to Comments on the DRAFT Phase II Sitewide Ecological Assessment Workplan, dated February 17, 1995, for Moffett Federal Airfield
 - 2) Draft Final Phase II Sitewide Ecological Assessment Workplan, dated May 19, 1995, for Moffett Federal Airfield

Dear Mr. Chou:

Enclosed are comments from staff of the Regional Water Quality Control Board on the subject documents received in this office on May 19, 1995. Please contact me at 510-286-0840 if you have any questions.

Sincerely,


Susan F. Gladstone
Environmental Specialist

Prepared by: Susan Gladstone *Hef*
Micheal Bessette

Phone No. 510-286-0840

Date: July 14, 1995

File No. 2189.8009

- Subject:
- 1) Response to Comments on the DRAFT Phase II Sitewide Ecological Assessment (SWEA) Workplan, dated February 17, 1995, for Moffett Federal Airfield
 - 2) Draft Final Phase II SWEA Workplan, dated May 19, 1995, for Moffett Federal Airfield

General Comments

In a meeting with US EPA, DTSC, RWQCB, and the Navy contractors on July 12, 1995, the RWQCB agreed to review and approve, if appropriate, the Draft Final Phase II SWEA Workplan with the contingency that outstanding or as yet unresolved issues would be addressed by the Navy in either an addendum, a technical memo, or meeting minutes. The reason for this approach is that the ecological project team has not come to agreement on all portions of the Phase II SWEA Workplan, yet we do not want to delay the overall project schedule. Those remaining portions (Sections 3.4 - Interpretation of Sediment Bioassay Results and 3.5 - Risk Characterization) are currently under discussion in a series of meetings between the agencies, the Navy, and the Navy contractors. We agreed to this approach so that the field work portion of the project could proceed this spring without delay, and to allow sufficient time for meetings and discussions on how the data would be interpreted and utilized in the risk characterization. These meetings are proceeding satisfactorily.

The Navy contractors agreed to include a discussion of the outstanding issues in the Final Phase II SWEA Workplan, and to reference the document(s) in which they will be addressed.

In general, the RWQCB finds the field sampling and analysis portion of the Draft Final Phase II SWEA Workplan acceptable (with a few minor comments), and is reserving approval of Sections 3.4 and 3.5 until we have an opportunity to review the documentation of agreements reached in our series of technical meetings on those sections.

The minor comments below do not require specific changes to the Draft Final Phase II SWEA, but can be addressed in subsequent documents.

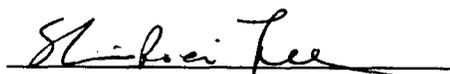
Specific Comments

1. **Response to RWQCB Comment 1:** The Navy will need to provide additional information as to the modelling approach to be used to evaluate migration of indicator COPECs to Cargill Salt Ponds; this includes which COPECs and which model will be proposed. When will this study be carried out? Will it be part of the site-wide RI? How will this information be used in the context of the SWEA?

2. **Response to RWQCB Comments 2 and 8:** The project team has been discussing the merits of carrying out the risk characterization with one or two indicator PAHs versus all of the PAHs in the COPEC list. The subsequent addendum or technical memo to the Phase II SWEA Workplan must clarify the final decision reached by the project team.
3. **Response to RWQCB Comment 14:** The interpretation of sediment bioassay results is one of the outstanding issues which is currently being discussed amongst the project team members. The results of these discussions and any agreements must be documented.

With regard to the possible need to perform a TIE, we believe the Navy should be willing to consider a TIE, depending upon the results of the analytical data and risk characterization. A TIE may be warranted if there is a desire to attribute adverse effects and subsequent remedial actions to a particular chemical or chemicals.

Concur:


for Ron Gervason, Section Leader