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Department of Toxic Substances Control

Edwin F. Lowry, Director
5796 Corporate Avenue
Cypress, California 90630

Gray Davis
Governor

Vinston H. Hickox
Agency Secretary
California Environmental
Protection Agency

November 8, 1999

Mr. Dean Gould
BRAC Environmental Coordinator
U.S. Marine Corps Air Station - El Toro
P.O. Box 51718
Irvine, California 92619-1718

REVIEW OF DRAFT PHASE II REMEDIAL INVESTIGATION REPORT (RI),
ATTACHMENTS O AND P, OPERABLE UNIT-3B SITES 7 AND 14
MARINE CORPS AIR STATION, EL TORO, VOLUMES I-III

Dear Mr. Gould:

The Department of Toxic Substance Control (DTSC) has completed its review of the subject document dated September 1999 and received by this office on September 9, 1999. The document overall is well written and the information is presented in an organized fashion. The following are DTSC comments:

1. Executive Summary: It is recommended that some clarification text be added to the Executive Summary to state that while Site 14 underwent a Phase II RI, no additional samples were taken. Only sampling at Site 7 was undertaken during the Phase II RI.
2. Page ES-4, first paragraph: It states, "The cancer risks estimated for future residents and industrial workers at Sites 7 and 14 are within the generally allowable risk range of 10^{-4} to 10^{-6} as stated in the National Oil and Hazardous Substances Pollution Contingency Plan (NCP)."

DTSC does not consider 10^{-4} to 10^{-6} an acceptable risk range. DTSC considers a one in one million or 10^{-6} risk as the point of departure for considering remediation of risks.

3. Page ES-5, Recommended Actions, first sentence: The first sentence references the Phase I RI when it should reference the Phase II RI, at least for Site 7. Please clarify.

4. Page O-viii, Acronyms/Abbreviations: There is only a page O-viii. Is there supposed to be a Page O-ix also?
5. Page O1-9, top paragraph and Section 1.3.5: The "TFH" references should be corrected to "TPH."
6. Page O7-9, Section 7.2.1: The first sentence references the Phase I RI when it should reference the Phase II RI. Please revise.
7. Page P7-8, Section 7.2.1: Please add a sentence or two to clarify how Phase II RI was achieved in conjunction with Phase I RI for Site 14.
8. Attachment O, Figure 4-3: The legend does not have the black triangle symbol included for reference. Please include.
9. Attachment O, Page O4-21, Table 4-3 and Figure 4-3, PAH and Metals at Site 7 Unit 1: Surface soils, Unit 1 of Site 7, the north pavement edge, have significant contamination with PAH, Cu, Pb, Ni, and Zn. PAH concentrations decrease quickly with depth. PAH and metals above background were seen in Phase I borings 07_ST3 and 07_STDB and in Phase II borings 07B101, 07B102, and 07B103. The two sets of borings are located close together. In Phase II boring 07B105, Cu was present at 2,110 mg/kg, but a duplicate sample had just 10.4mg/kg. This pattern of PAH and metals suggest a release of used engine oil.
10. Page O6-8, Table 6-1, Adherence of Soil to Skin: As a default value for adherence of soil to skin, DTSC now recommends 0.2 and 0.07 mg/cm² for resident children and adults, respectively. The Navy may use these factors in future risk assessments.
11. Page O6-17, Table 6-4, and Appendix I, Table I1-7: The report shows the hazard quotient (HQ) for manganese at Unit 1 to be 0.64. This value makes the largest contribution to the hazard index of 1.4 for the child resident (Table 6-4). This value for HQ is an overestimate because the Navy compared exposure calculated for a child to the inhalation reference dose (RfD,) shown in the U.S. EPA Region IX Preliminary Remediation Goals of August 1998, which is a cross-route extrapolation calculated for an adult. The Navy should recalculate their estimates of non-cancer risk for Site 7, Unit 1, because the toxicity criterion for manganese via inhalation was misapplied, causing an overestimation of hazard.

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12. Attachment O, Presentation of Results, Section 6.0, and Appendix I: The graphical presentation of cancer risks by pathway and receptor is very useful for the risk manager (Figures 6-2 - 6-10). Also, the probability plots in Appendix I, Sections 2 and 4 are an extremely useful adjunct to the statistical testing of the types of distributions. We recommend that the Navy continue to use this presentation format in future assessments.

Please provide a response to comments summary for this letter. If you should have any questions regarding this letter, please call me at 714-484-5429.

Sincerely,



Alice Gimeno
Southern California Branch
Office of Military Facilities

cc: Mr. Glenn Kistner
Remedial Project Manager
U. S. Environmental Protection Agency, Region IX
Superfund Division (SFD-8-2)
75 Hawthorne Street
San Francisco, California 94105-3901

Ms. Patricia Hannon
Remedial Project Manager
California Regional Water Quality Control Board
Santa Ana Region
3737 Main Street, Suite 500
Riverside, California 92501-3339

Mr. Gregory F. Hurley
Restoration Advisory Board Co-chair
620 Newport Center Drive, Suite 450
Newport Beach, California 92660-8019

Ms. Polin Modanlou
MCAS El Toro Local Redevelopment Authority
10 Civic Center Plaza, 2nd Floor
Santa Ana, California 92703