M60050.000725
MCAS EL TORO
SSIC # 5090.3

MLC

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

1994 OCT -6 AM 11: 10

September 28, 1994

Mr. Wayne Lee, Assistant Chief of Staff
Environment and Safety
MCAS El Toro
P.O. Box 95001
Santa Ana, CA 92709

Dear Mr. Lee:

EPA has reviewed the "Draft Operable Unit 1 Baseline, Human Health Risk Assessment Report," prepared for Marine Corps Air Station, El Toro, California, dated July 1, 1994. Please address the enclosed comments (Enclosure A). If you have any questions, I can be reached at (415) 744-2389.

Sincerely,

Bonnie Arthur
Remedial Project Manager
Federal Facilities Cleanup Office

Enclosure

cc: Mr. Juan Jimenez, DTSC
Mr. John Broderick, RWQCB
Mr. Joseph Joyce, SW DIV
Mr. Andy Piszkin, SW DIV
Mr. Dante Tedaldi, Bechtel

Printed on Recycled Paper

ENCLOSURE A

Memorandum

To: Bonnie Arthur (H-9-2)
Remedial Project Manager

From: Daniel Stralka Ph.D. (H-9-3)
Regional Toxicologist

Subject: El Toro MCAS Draft OU-1 RI/FS Human Health Risk Assessment Review

Date: 21 September 1994

I have reviewed the above document submitted by the Navy and their contractors, Jacobs Engineering Group, CH2MHill, and IT Corp. dated 1 July 1994. OU-1 is defined as the groundwater and contamination under and associated with the station. I found the present document to be confusing and of little use for the project team to justify future decisions. The document presents a sample-specific risk methodology which uses standard exposure factors to calculate chronic risks but limits the exposure concentration to the single sampling point. This is done to present a spatial context to the multiple contaminants in a media. This is a useful management tool for depicting the areas of concern and prioritizing the investigation. However, this is not a risk assessment which will be needed to document the final decisions. Due to the areal extent of the contamination, the lack of temporal information, and the administrative separation of the sources from the corresponding plumes, a classic risk assessment using average concentrations which would more accurately reflect the chronic exposures would not be possible at this time. In order to modify the current document to make it useful for the project team within the schedule, the tables need to be changed to reflect the contaminates in each sampling location. This information is in the report but the reader must dig to find it. Another refinement in the presentation is to include the three dimensional information in a more useful form. Currently, cluster well information is apparently incorporated as individual wells which masks the depth information. Finally, to make the report useful, the graphics must be improved to define areas of similar contamination and construct the risk isopleths to focus the viewer on associated areas.

Overall, the report lays out a useful approach for the level of current information but it stops far short of presenting the reader with a means of interpreting the collected data. The description of the proposed approach in comparison to the standard methodology needs greater discussion of the attributes and short comings of each methodology so the project team will have a means of evaluating the results and conclusions of each approach. Then the calculated risks need to be aggregated based on similar contaminants, i.e. VOCs, SVOCs, pesticides or inorganics, to better focus the team on possible source areas to be investigated in the other OUs and ultimately incorporated in the final base-wide evaluation. This could be done by concentration isopleths and/or risk isopleths. This will allow the reader to easily assimilate the data presented in this report and focus on areas of concern along with the type of contaminate. Finally, a reality check needs to be done on the results, that is further substantiation of the claim of possible background based on production well data and a discussion of the resolution of the contours due to the limited spatial sampling in some areas.

While this will not be a risk assessment, it will present the data in a form that will be useful for the project team to justify and focus further decisions and investigations.

Specific Comments

1. Introduction page 1.1. A short discussion of the hydrogeologic situation should be presented to evaluate the screening interval information presented later.

2. Section 4.2.3 Other Toxicity Issues page 4-19. Lead. Using the lead action level for drinking water could be useful for the current evaluation, but future lead decision we need to be evaluated using either the USEPA Biokinetic Uptake Model or Cal EPA's Leadspread. For consistency and ease of combining results of future risk assessments, these models should be used to evaluate the lead exposures.

3. Section 5.1.3 Well-specific Risk Estimation Methods page 5-3. A more extensive discussion of the pros and cons of each method needs to be presented to give the reader a means of evaluating the results.

4. Table 5-1 page 5-5. Chemicals detected and/or chemicals above the hazard index of 0.1 should be incorporated into this table so the reader can evaluate the level of contamination.

5. Risk Figures. Elevated risks should be depicted using contours and aggregated based on similar contaminates.