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MCAS EL TORO
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TITLE: COMMENTS ON EL TORO MARINE CORPS AIR STATION POSITION PAPERS

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MEMORANDUM

To: John Hamill (H-9-2)
Remedial Project Manager

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

Subject: Comments on El Toro Marine Corps Air Station Position Papers

Date: 3 August 1993

I have reviewed several documents prepared by Jacobs and CH2MHill, each will be listed separately followed by comments.

Phase I Remedial Investigation, Draft Technical Memo, dated 7 May 1993, Risk-based Concentrations memo dated 20 May 1993, and a memo from Liz Miesner dated 9 July 1993 detailing changes to the draft technical memo.

1. I reviewed chapter 7 and appendix H of the preliminary baseline risk assessment from the draft RI. The approach described for risk-based screening criteria in all the papers is generally acceptable with the following modifications. The soil ingestion parameter should be 100 mg/day for the adult 30 year exposure. This value is a lifetime ingestion rate which already includes an increased childhood ingestion. However, since children are a sensitive subpopulation for non-cancer endpoints due to their increased body burden, the child exposure of 1-6 years should be presented using the average body weight of 15 kg and an ingestion rate of 200 mg/day. This methodology presents the chronic exposure for the adult without masking the possible non-cancer effects to a sensitive population with increased exposure and elevated body burden. I suggest using the enclosed Region 9 PRG tables for the screening criteria. Where the pathways being assessed are not includeed in the PRG tables, then site specific calculations could be done and included in the appropriate scenarios. This would streamline the evaluation and reduce redundancies.

2. A procedural change is recommended in the order of evaluating site data. All chemicals detected in the phase I investigation should be included in the determination of risk regardless of source. Once this total risk has been evaluated, then address the source of the contaminates that exceed the cancer risk of 10^{-6} or hazard index of 1. This will initially present all risk information and focus the attention on compounds and elements that are present at concentrations of concern regardless of source. This will, in effect, eliminate the initial dependence on background sampling and allow the project managers to evaluate the site in a straight forward manner and may eliminate the need for background determinations at some sites.

Background Concentrations in Surface Soil; Metals, Pesticides, and Herbicides, dated 6 July 1993.

1. The evaluation of the reference sites for their appropriateness as background areas for the site of investigation needs to be addressed. Criteria such as lithology and depth can be used to support the determination of a reference area as representative of background. Not all reference areas may be acceptable for all site background determinations.

2. The use of the 99%tile evaluation would be appropriate for screening metal concentrations for the contribution of background. However, the calculation of total risk should be done initially before discussing the source of chemicals or elements presenting elevated risks and thereby focusing the discussion on only those chemicals present at concentrations of concern.

Position Paper on the Human Health Evaluation of Sites with Potential Petroleum Hydrocarbon Contamination dated 6 July 1993.

1. This paper presents a reasonable and defensible position for evaluating petroleum hydrocarbon contamination by measuring for the most toxic components of these mixtures.

Chemicals to be Investigated During Phase II dated 6 July 1993.

1. In general, the procedure is acceptable for focusing the investigation for chemicals of concern. However, the ratios for evaluations of cancer should be expressed as x 10^{-6} so that the differences between the endpoints being evaluated is obvious to the reader.

2. Before focusing the list of COCs, the assumptions used in determining the definition of the strata, i.e. the site conceptual model, should be evaluated to determine if all assumptions are still valid based on the current results. If these assumptions cannot be supported then focusing will not be appropriate in the phase II investigation.