

State of California

Department of Toxic S

M e m o r a n d u m

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Region 4
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Date: 23 August 1993

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Subject : Marine Corps Air Station El Toro: Data Quality Objectives
PCA Code: 14650 Site Code: 400055-43

Background

Region 4 SMB has asked OSA for continuing support on issues regarding risk assessment at El Toro Marine Corps Air Station (ETMCAS). This is an NPL site in Orange County. Remedial activities are being directed by Naval Facilities Engineering Command, Southwest Division (SOUTHWESTDIV). The base is scheduled for closure during the 1990's.

Documents Reviewed

Several position papers were prepared by CH2M/Hill and Jacobs Engineering, contractors to SOUTHWESTDIV. Each deals with an aspect of risk assessment with respect to the process of developing data quality objectives (DQO) for Phase II of the remedial investigation (RI) at the base. The position papers are all in the form of memoranda addressed to Mr. Andy Piszkin of SOUTHWESTDIV. The papers we reviewed and their dates are as follows:

1. "Establishment of Cutpoints During the Data Quality Objectives Process", 6 August 1993
2. "Establishment of Background for Inorganics in Groundwater, Sediments, and Surface Water", 6 August 1993
3. "Chemicals to be Investigated During Phase II", 11 August 1993
4. "Statistical Design for Phase II Sampling", 11 August 1993
5. "Phase II Ecological Issues", 6 August 1993

General Comments

1. The papers were reviewed for scientific content. Minor grammatical or

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typographical errors that do not affect the interpretation have not been noted. However, these should be corrected in any future versions.

2. Papers 1 and 2 are acceptable. Specific comments are given below for Papers 3, 4, and 5.

Specific Comments

Paper 3

OSA agrees with USEPA Region 9 that it would be desirable to compare site concentrations of metals to risk-based criteria before comparing them to background levels. This order of approach would eliminate those metals which pose no apparent threat to human health and would leave few candidate metals to compare to background for any given site or stratum. We are aware, however, that USEPA guidance allows the Navy to perform these comparisons in the reverse order if they so choose. Therefore, we have no objection to performing the comparisons in the order given in Paper 3.

Paper 4

The method of determining the appropriate number of samples for any given stratum during the Phase II RI is stated clearly. This number will be zero if no chemicals of potential concern remain after screening procedures described for Phase I. It would be desirable to have a minimum of five values available to calculate an exposure point concentration. Therefore, if a stratum with three values from Phase I requires sampling during Phase II, it seems that a minimum value of 2 can be identified for N. It would be useful to identify this minimum number of samples in a rigorous way.

Paper 5

1. The Department has draft guidance dated October 1992 for the conduct of ecological risk assessments. A copy of this guidance will be provided at the DQO meeting scheduled for early September 1993. Please incorporate these concepts into the assessment for this base.
2. Sediment in dry washes at MCAS El Toro are mobilized during storm events and travel eventually to upper Newport Bay. Therefore, these sediments should be evaluated for potential exposures to both terrestrial and aquatic species.

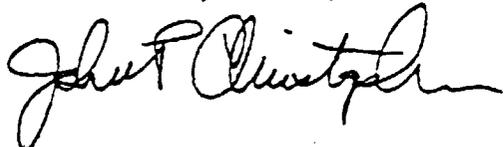
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This approach is being taken (at the Department's request) for sediments in washes at Marine Corps Base Camp Pendleton.

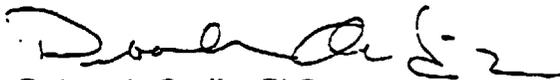
- 3. Examination of the Attached table led to reconsideration of Table 7-30 in the Technical Memorandum of 7 May 1993. A large number of the criteria said to be protective of mammals are based on lowest observed adverse effect levels (LOAELs). These levels are associated with toxicity in the test species. How were these values converted to levels thought to be protective of mammals?

Conclusion

Position papers 1, 2, and 3 are acceptable. Paper 4 can be improved with an identification of a minimum value for N. Paper 5 requires additional explanation.



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cc: Dr. J. Parker, HERS