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July 25, 1995

California Regional Water Quality Control Board - Santa Ana Region
2010 Iowa Avenue, Suite 100
Riverside, CA 92507-2409

Attention: Larry Vitale, Remedial Project Manager

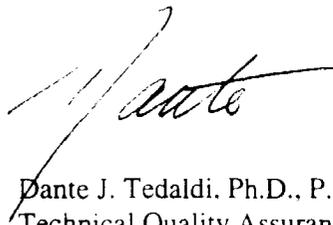
Subject: Technical Review Comments on (Draft) Engineering Evaluation and Cost Analysis for Sites 4, 11, 13, 14, 19, and 20 (Draft) Phase II Remedial Investigation/Feasibility Study MCAS El Toro CLEAN II CTO-0059.

Dear Mr. Vitale

I have completed the review of the subject documents and find them to be technically acceptable with minor revisions. My comments are brief and relate to common issues among all of the EE/CA reports. Of particular interest was the selection of a residential soil depth of 2 feet as opposed to the 10 feet often used for risk assessment purposes for other projects within Southwest Division. The rationale for the selection of sliding-scale removal action criteria for lead in soil at the various depths needs clarification. In addition, since bioremediation of PCBs is an unproven process with an extremely low probability of success, biotreatment alternatives probably do not need be considered for PCB removal actions.

If I can be of any assistance please call me in Bechtel's San Diego office at (619) 687-8780.

Sincerely,



Dante J. Tedaldi, Ph.D., P.E.
Technical Quality Assurance MCAS El Toro

Attachment: Comments on draft EE/CAs



cc:

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Attachments

1. **Technical Review Comments on EE/CAs for Sites 4, 11, 13, 14, 19, and 20 (Draft) Phase II Remedial Investigation/Feasibility Study MCAS El Toro CTO-0059.**

1.1. General

Comments are presented specific to several, but not all of the EE/CAs reviewed. This is because of the similarity between documents and therefore, it is expected that comments noted on one document will be applied to all other equally relevant text in the other EE/CAs.

1.2. Specific

1.2.1. Within the SUMMARY sections and throughout the documents, revise the text and tables to reflect the recent decision to use residential Preliminary Remediation Goals (PRGs) for screening, rather than Risk Based Concentrations (RBCs).

1.2.2. Within the SUMMARY sections state whether or not the material to be excavated/treated is considered by the Navy to be a state or RCRA hazardous waste.

1.2.3. For the following case, then the removal action objective should be stated as in the documents with the addition of the bracketed text. "...preventing exposure to soil with contamination at concentrations exceeding a [cumulative] excess lifetime cancer risk of 10^{-6} and a [cumulative] excess non carcinogenic hazard index of 1."

If cumulative effects were not considered, then the text should be explicit and state that.

1.2.4. Consider a brief discussion in the documents related to the fact that CTO-0065 will conduct a polynuclear aromatic hydrocarbon (PAH) background study. The results of this PAH background study could affect removal decisions made in these EE/CAs.

1.2.5. There doesn't appear to be adequate justification for the decision to select the CAL-modified PRG of 130 mg/kg lead in soil for 0 to 2 ft below ground surface (bgs) and the Region IX PRG of 400 mg/kg for lead in soil for depths exceeding 2 feet. The Applicable, Relevant, and Appropriate Requirements (ARARs) sections and appendices do not appear to address this issue. Nor has either standard been specifically identified as an ARAR.

Previous discussions between Dr. D. Liu of Bechtel National, Inc. and Dr. J. Christopher of DTSC resulted in the selection of 0 to 10 feet bgs as the residential soil exposure depth.

For a Federal-lead National Priorities List Site such as MCAS El Toro, it may be more consistent with other USEPA Regions to select a lead value of 400 mg/kg throughout the entire 0 to 10 ft bgs depth.

- 1.2.6. Within the ARARs sections in the text and the appendices revise the text to clarify that state toxicity characteristics are based not only on Toxicity Characteristics Leaching Procedure (TCLP), but also Total Threshold Limit Concentrations (TTLC) and Soluble Threshold Limit Concentrations (STLC). For reference, see CCR §22-66262.24.

For those EE/CAs which addressed soil containing low levels of polychlorinated biphenyls (PCBs) the decision to carry bioremediation through the complete analysis should be reexamined. Bioremediation is demonstrated to be ineffective for the destruction of PCBs. For example, at the CERCLA enforcement lead site of General Motors-Central Foundry Division in Region 2, Massena, NY. Laboratory bioremediation studies were performed in 1993 on PCB-contaminated soils. Bioremediation, solvent extraction, and thermal desorption were tested and found to be ineffective. Bioremediation was not able to get PCB levels down to acceptable levels; no further than 100 mg/kg. Cleanup levels for sediment were 1.0 mg/kg and 10.0 mg/kg for sludge and soil.

Other than incineration, there are no viable treatment technologies than can meet the residential PRG of 0.066 mg/kg. Moreover, consider that the Toxic Substances Control Act (TSCA) incineration equivalency performance guideline for PCBs is 2.0 mg/kg.

- 1.2.7. There is a minor inconsistency between the Site 19 and Site 11 EE/CA reports. A background level is specified for PCBs for Site 11 (Table 2-1), but is absent from the equivalent table for Site 19.