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ALAMEDA POINT
SSIC NO. 5090.3

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Mr. Glenna Clark
Department of Navy
Southwest Division
Naval Facilities Engineering Command
1230 Columbia Street, Suite 1100
San Diego, CA 92101

REVISED DRAFT FINAL FEASIBILITY STUDY REPORT, SITE 14, ALAMEDA POINT, ALAMEDA, CALIFORNIA

Dear Ms. Clark:

The Department of Toxic Substances Control (DTSC) has reviewed the revised draft final feasibility study (FS) report for Site 14 dated July 25, 2003. We concur with the Navy that Alternative 2, i.e., monitored natural attenuation (MNA) and land use control (LUC), is a viable remedial alternative for the subject site provided that the following conditions are met:

1. "Acceptable concentrations" for chemicals of concerns (COCs) identified in the groundwater are clearly defined;

2. The presence of natural attenuation is assessed in accordance with EPA guidance document "Technical Protocol for Evaluating Natural Attenuation of Chlorinated Solvents in Groundwater" (EPA/600/R-981-128), dated September 1998 (see comments below);

3. The cost estimate is revised and reflects more closely the necessary elements of an effective MNA (see comments below);

4. MNA will be developed in accordance with EPA OSWER Directive 9200.4-17P "Use of Monitored Natural Attenuation at Superfund, RCRA Corrective Action, and Underground Storage Tank Sites", dated April 21, 1999 and presented in the Record of Decision (ROD) available for public review and comments.

Please be advised that the basic premise of the MNA/LUC alternative is based on the occurrence of natural attenuation at Site 14. Currently there is no data provided in this FS report to support this premise. The modeling on which the detailed analysis of alternatives is based (i.e. the degradation of volatile organics to below Maximum Contaminant Levels (MCLs) in 100 years) is a simple two dimensional screening tool called BIOCHLOR. DTSC does not recommend the development of a detailed analysis of alternatives using this screening tool. In addition, a review of the modeling data used in Appendix C of the report indicates the use of very simplistic lithology data and does not contain any specific geochemistry data that would be required for a detailed analysis of the possible success of natural attenuation as a treatment at Site 14. In order to fully assess the presence of natural attenuation at Site 14, DTSC recommends the use of the guidance EPA/600/R-981-128 and appropriate models recommended therein.

Also, please be advised that the level of site characterization necessary to support a comprehensive evaluation of natural attenuation is, in general, more detailed than that needed to support active remediation. DTSC believes site specific characterization more detailed than what has been presented in the remedial investigation (RI) is needed and recommends the following:

- Construct additional monitoring wells to locate the vertical extent of the vinyl chloride plume (The RI reports that vinyl chloride concentrations at the deepest intervals, which are several feet below the boundary of fill and the bay sediment unit (BSU), are still above levels of concern. Therefore the extent of contamination for vinyl chloride has not been determined).

- Establish the condition (e.g. the screen interval) of the 500-ft deep Pan Am well. At least one water sample should be obtained from the well and analyzed for the COCs to determine whether surface or subsurface contamination has reached the water bearing zone or zones screened by this well.

- Analyze the groundwater for 1,4-dioxane and perchlorate to determine the impact, if any, of past involvement with solvent stabilizer and storage of pyrotechnics, ordnance and explosives at Site 14.

- Reconsider the COC identification used in the RI that eliminates from further consideration of chemicals that are an essential nutrient (We disagree with this reasoning as it is possible to have these chemicals, principally metals, at a concentration that may present an ecological risk).

- Ensure rigorous control on groundwater sample collection (Some previous groundwater samples were taken from vacuum excavation borings completed during the storm sewer investigation, suggesting the results could be biased low).

- Ensure iso-concentration contours illustrate conditions at one point in time (Some iso-concentrations contours shown in the RI were drawn from groundwater data taken four years apart. These contours can be misleading because they do not represent what iso-concentration contours are generally supposed to represent).

Please also be advised that:

- An appropriate MNA should be capable of achieving a site's remedial objective within a time frame that is reasonable compared to that offered by other alternatives;

- MNA sampling should be at least semiannually; sampling once every five years for COCs is not acceptable;

- MNA sampling should include ethane, ethane, methane and pertinent field parameters such as oxidation reduction potential (ORP) and dissolved oxygen (DO);

- Current economic indicators (i.e., Federal Discount Rate) should be used as the discount rate in the cost analysis (Based on current economic conditions, the use of 3.9 % as a discount rate is considered optimistic).

Please note that the above concurrence applies only to the groundwater medium at Site 14. DTSC reserves our concurrence to Navy's recommendation that soil at the subject site requires no further action until RCRA corrective action requirements are fully addressed. Please refer to the RCRA corrective action comment letter to be issued hereafter for the details.

Sincerely,

Marcia Y. Liao

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Office of Military Facilities

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