Department of Toxic Substances Control

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ALAMEDA POINT
SSIC NO. 5090.3

Winston H. Hickox
Agency Secretary
California Environmental
Protection Agency

Gray Davis
Governor

March 25, 2002

Glenna Clark
BRAC Operations, Code 06CA.GC/0718
Department of the Navy
Southwest Division
Naval Facilities Engineering Command
1230 Columbia Street, Suite 1100
San Diego, CA 92101

DRAFT ENGINEERING EVALUATION AND COST ANALYSIS FOR THE NON-TIME CRITICAL LEAD REMOVAL ACTION AT THE WATER TOWER AND ANTENNA STIES, ALAMEDA POINT, ALAMEDA, CALIFORNIA

Dear Ms. Clark:

The Department of Toxic Substances Control (DTSC) has reviewed the above referenced document prepared by Tetra Tech EMI and submitted by the Navy on December 21, 2001. Attached are our comments. If you have any questions, please contact me at 510-540-3767.

Sincerely,

Marcia Y. Liao

Marcia Liao, Ph.D., CHMM
Hazardous Substances Engineer
Office of Military Facilities

enclosure

cc: see next page

cc: Michael McClelland, SWDiv
Andrew Dick, SWDiv
Steve Edde, Alameda Point
Anna-Marie Cook, EPA
Dennis Mishek, RWQCB
Elizabeth Johnson, City of Alameda
Michael John Torrey, RAB Co-Chair
Lea Loizos, Arc Ecology
Chris Fennessy, Tetra Tech EMI

DTSC COMMENTS
DRAFT ENGINEERING EVALUATION AND COST ANALYSIS (EE/CA)
LEAD REMOVAL ACTION
WATER TOWER AND ANTENNA SITES
ALAMEDA POINT, ALAMEDA, CALIFORNIA

GENERAL COMMENTS

1. Lead based paint (LBP) may contain other metallic substances such as chromium and cadmium. Please verify if the preliminary remediation criteria (PRC) of 199 mg/kg of lead, which is established using lead as the only chemical of potential of concern (COPC), is adequately protective of human health and the environment.

2. Although elements other than lead may be involved, it is conceivable that lead can be used to approximate the boundaries of removal. However, the boundaries outlined in the EE/CA are not always based on the lead concentrations in soil. It appears that final remedy will need to consider contamination under pavement and any other contamination in the vicinity and not addressed by this removal action. Specifically, our concerns are as follows:

   - Except at Parcel 79, the sampling at all other four parcels was limited to unpaved land only. This has left the soil beneath the pavement uninvestigated. Given the age of the water towers and antennas (three water towers were constructed in 1933 and two antennas in 1953), it is very likely that paint chips fallen off from the structures got into the surrounding soil before the paved roads or buildings were constructed.

     The sampling at Parcel 79, on the other hand, showed lead at 501 mg/kg beneath the asphalt paving. This strengthens the argument that the water towers and antennas were probably there before the roads and buildings and that soil contamination beneath the pavement is probably contaminated by LBP.

   - The EE/CA defines the depth of the removal to be same as the sample depth where lead is detected at levels above the established PRC or 199 mg/kg. Although lead is expected to have low mobility in soil, it is possible that the contamination continues downward beyond the sample depth before tapering off to be below the PRC. Therefore, it is prudent to assume that contaminants are present at greater distances from sample points and that the removal should go deeper than where the sample points were placed.

3. The EE/CA proposes to take a total of 93 confirmation samples from each excavation sidewall and from the pit floors based on 50-foot centers (Appendix C, Section C4.1) to verify that the PRC has been achieved across the subject parcels. Please explain why such a sampling scheme is considered adequate.

4. It is advisable that the EE/CA contains a stand-along workplan or standard operating procedure (SOP) to address health and safety issues of concerns to the community. Specifics include, but are not limited to, the following should be provided:

   - Air monitoring details (e.g. instrument, location of monitoring, and duration of monitoring)
   - Action levels
   - Dust control measures
   - Means to keep soils covered (e.g. use **closed-top** roll-off containers for staging contaminated dirt on site, use tarps when transporting soil materials in and out of the site)
   - Measures to remove dirt from tires (e.g. brushing, scraping or washing) before vehicle leaving site
   - Measures to eliminate visible soil materials off non-work areas (e.g. periodic sweeping)
   - Any run-on and run-off controls
   - Means to keep the open pits safe prior to backfill (e.g. fence off)
   - Means to decontaminate heavy equipment (e.g. construct decon pad)
   - Means to manage decon wastes
   - Contact persons and phone numbers for the community to call during site activities.

5. The EE/CA does not explain how backfill materials are brought in. Issues such as the source of the material, the need to sample, the number of samples and appropriate testing parameters are integral to an excavation and backfill operation and should be clearly explained.

SPECIFIC COMMENTS

1. **Table 2-1:** The Table shows four parcels in the contents but five in the title. Please clarify.

2. **Table 2-4:**

   - The Table contains a typo in its title. Parcel 80 should be parcel 98.
   - Please attach DTSC LeadSpread as appendices.
   - Please date the OU-1 ecological risk assessment.

3. **Table 2-6:** 401 mg/kg (SS-36B-E25-A) should be bolded.

4. **Figure 2-1:** Antenna 36A is missing from the figure. Antenna 36B should be shown in red (It was demolished in 1994).

5. **Figure 2-5:**

   - The EE/CA defines the removal boundary to be five to ten feet away from the sample points where lead is detected at levels above the established PRC or 199 mg/kg. However, at least one such sample point (SS-33-NW50) is not so depicted.

   - There is a lack of explanation that at Parcel 106 samples from five different locations show soils at deeper level are more contaminated than those at shallower depth. At SS-33-E25, for example, 1,260 mg/kg of lead was detected at 12"-18" but only 165 mg/kg and 54 mg/kg were found at 0-6" and 6"-12", respectively.

6. **Figure 2-6:** SS-61-SE25 shows 272 mg/kg of lead at 12"-18" which is higher than the PRC, but the proposed soil removal extends to 12" only.

7. **Figure 2-7**: Parcel 90, SS-88-S-COMP, listed as the last line in the data table is not shown in the figure.

8. **Figures 2-2 to 2-7:** The proposed removal boundaries are shown using straight lines. In many instances the lines appear to be farther than five to ten feet from the sample point, suggesting possible over-excavating.

9. **Page 2-8, second paragraph**: Please explain what "more stringent input parameters" the Navy has used.