

5090
Ser T4E2GM/L3449
30 August 1993

From: Commander, Western Division, Naval Facilities Engineering Command
To: Distribution

Subj: IMPLEMENTATION WORK PLAN FOR THE INTERIM REMOVAL ACTION
(IRA) FOR LEAD AND ACID SOILS AT THE INTERMEDIATE MAINTENANCE
FACILITY (IMF) SITE, NAVAL AIR STATION, ALAMEDA, CA

Encl: (1) Response to Comments from the California Regional Water Quality Control
Board (RWQCB) dated August 17, 1993.

1. Enclosure (1) is the Navy response to the RWQCB comments on the subject work plan.
2. Should you have any questions regarding these comments, the point of contact is Mr. Gary J. Munekawa, Code T4E2GM, (415) 244-2524 or Mr. George Kikugawa, Code T4E2GK, (415) 244-2559.

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By direction

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RESPONSES TO COMMENTS

This attachment presents the Navy's responses to the California Regional Water Quality Control Board's (RWQCB) comments on the Implementation Work Plan for the Interim Removal Action (IRA) for lead and acid soils at the Intermediate Maintenance Facility (IMF) Site at NAS Alameda. The RWQCB's comments were received in a letter dated August 17, 1993. The RWQCB's comments are presented verbatim in bold typeface, followed by the Navy's responses in normal typeface.

GENERAL COMMENTS

Comment No. 1:

The excavation of lead contaminated soils should not necessarily stop at five feet below ground surface (bgs). The entire zone of contaminated soils with lead concentrations above 100 parts per million (ppm) shall be removed. Groundwater is fairly shallow at the IMF site. With all of the equipment and manpower mobilized for this interim removal action it would be more cost-effective for the Navy to clean up the entire zone of contaminated soils with lead at a concentration higher than 100 ppm. In particular, all soils around boring B-7 with a lead concentration over 100 ppm or an abnormally low pH should be excavated, even if the excavation occurs below the groundwater table.

Response to Comment:

The objective of this IRA is to remove vadose zone soil at and in the vicinity of boring B-7, which contains elevated levels of lead and low pH. Excavation of soil in the saturated zone would require extensive dewatering of the excavated soil and the excavation pit which is not cost effective. Toxicity Characteristics Leaching Procedure (TCLP) tests were performed on soil samples with total lead concentrations in the 100 ppm range. Results of the TCLP tests indicate that the soil at and in the vicinity of boring B-7, in general, does not leach out lead in concentrations above the California Soluble Threshold Limit Concentration of 5 mg/l. Furthermore, the impact of the lead in the remaining soil will be evaluated in the baseline risk assessment during the Remedial Investigation/Feasibility Study (RI/FS). If warranted, additional remediation action will be implemented after the final cleanup goal for lead is established.

Comment No. 2:

The interim removal action at the IMF Site coincides with the larger RI/FS being performed at this site. The IMF Site is located within Installation Restoration (IR) Site Number 13. We request that one of the two reports fully characterize the lateral and vertical extent of contamination at the IMF Site and to describe how best to remediate it. This Interim Removal Work Plan shall mention how the two reports will overlap. We want to know if the Navy plans to use the final excavation confirmation sampling as data in the RI/FS report.

Response to Comment:

The confirmation sampling results for the IRA and the results of additional investigation to be performed in Site 13 will be used to evaluate the extent of contamination of Site 13. Results of the evaluation will be included in the RI report. Details of the additional investigation for Site 13 will be presented in the Follow-on Field Sampling Plan for the Phase 2A sites. The Follow-on Field Sampling Plan is being prepared by the Navy.

Comment No. 3:

Any excavation as a result of this removal action needs to be backfilled with clean soil, especially if the excavation was to be limited to five feet bgs. Backfilling will reduce the potential of the residual soil contamination leaching into the groundwater.

Response to Comment:

Backfill of the excavation area with clean soil is not recommended due to potential contamination of the clean soil by the existing site conditions which could lead to future remediation of the clean backfill.

Comment No. 4:

The final confirmation sampling plan for the bottom and sidewalls of the excavation, or any groundwater that would be encountered shall test for all chemicals that would be expected at a former oil refinery. Volatile Organic Compounds, Semi-Volatile Organic Compounds, a full suite of metals, pH, and total petroleum hydrocarbons (TPH), for both gasoline and diesel, shall be analyzed during final confirmation at the IMF site. For soil samples a California Waste Extraction Test (a solubility test) shall be used for the metals to look at the leaching potential of the metals.

Response to Comment:

TPH, pH, and lead analyses will be performed on the final confirmation soil samples at the IMF site.

Site characterization has been conducted at Site 13 under Phase 2A site investigation. As discussed in the response for General Comment No. 2, future site investigation is planned for Site 13 to collect additional data to complete the remedial investigation. We believe that we will collect sufficient data during the additional investigation to complete the evaluation of VOCs, SVOCs, TPHs, and metals in soil at Site 13. The Navy is not planning to

perform VOC, SVOC, and metals analyses on the final confirmation soil samples, especially to be collected from a small area of 45 feet by 50 feet.

SPECIFIC COMMENTS

Comment No. 1:

Section 2.1.3: Please explain how you will restrict access to the excavation area? Will you use any fencing?

Response to Comment:

As indicated in the first sentence of Section 2.2.1, during excavation, temporary chain-link fences will be installed to restrict access to the excavation area.

Comment No. 2:

Section 2.2.2: The abandonment of monitoring well MW-IMF-02 shall be done according to the Destruction of Monitoring Wells Section in the Water Well Standards: State of California (Department of Water Resources, Bulletin 74-81 and Bulletin 74-90). On page 51 of Bulletin 74-90 the regulations ask that "The monitoring well casing, and any other significant voids within the well, shall, at a minimum, be completely filled with sealing material, if . . . the monitoring well is located in an area of known or potential pollution or contamination." The second bullet item is unclear as to how much of the hole is to be filled with neat cement. Please amend this sentence to say that the hole will be filled up to ground surface with cement.

Response to Comment:

The monitoring well will be abandoned in place by filling up to ground surface with cement grout. Navy intends to grout the monitoring well prior to excavation. This will be incorporated into the final Implementation Work Plan.

Comment No. 3:

Section 2.2.3 (first Paragraph): The report mentions that in the ten foot by ten foot excavation around boring B-7, lead-contaminated soils will be removed from below the elevated lead concentration of 13,000 ppm at B-7. Please describe how groundwater will be extracted and disposed of from the excavation pit in the event that there is excavation below the water table.

Response to Comment:

As discussed in Section 2.2.4 of the draft Implementation Work Plan, groundwater seeping into the excavation area will be removed by a submersible sump pump and stored in a baker tank. The stored water will be sampled, and analyzed to evaluate the appropriate disposal alternative. At present, the Navy plans to dispose of the groundwater to the industrial wastewater treatment plant at Building 5 of NAS Alameda.

Comment No. 4: Section 2.2.3 (last sentence, first paragraph): The excavation of lead-contaminated soils shall not necessarily stop at five feet below ground surface. The entire zone of contaminated soils should be excavated. Please see General Comment #1.

Response to Comment: See response to General Comment No. 1.

Comment No. 5: Section 2.2.3 (last paragraph): If this excavation of lead-contaminated soils is going to be done partly in this interim removal action and partly under the RI/FS process, please explain if and how the final lead, total petroleum hydrocarbons, and pH soil confirmation sampling data will be incorporated in the RI/FS report.

Response to Comment: See response to General Comment No. 2.

Comment No. 6: Section 2.2.6: It is not acceptable to leave a depression at the IMF site after excavation, especially if there is residual lead and TPH contamination in the soil. Clean backfill shall be used to restore the excavation pit to the original grade. Leaving contaminated soil exposed during the winter months is likely to cause additional leaching of contaminants from the soil to the groundwater.

Response to Comment: See response to General Comment No. 3.

Comment No. 7: Section 3.2.1: There is no apparent correlation between the lead and pH screening samples for each phase of excavation listed in Table 1 and the geographic boundaries of the actual phase depicted in Figure 5. For example, for the ten foot by ten foot excavation which is centered around B-7 (Phase 1) the report proposes to sample the soil at locations, 1W, 1F, 2W, 3W, and 4W, which are at least 25 feet away from the Phase 1 boundaries. Please include some explanation of this apparently random screening sampling in Section 3.2.1.

Response to Comment: The locations: 1W, 1F, 2W, 3W, and 4W are shown on Figure 6, not on Figure 5. These locations are the final confirmation sample locations, not the screening sample locations. As shown in Figure 5 for the screening-level sample locations, a total of 4 wall samples and 1 floor sample will be collected at the Phase 1 boundary. The locations of the screening-level samples were selected based on a sampling density of one sample per 100 square feet of surface area.

Comment No. 8:

Section 3.5.2: This section gives the method for analyzing lead in the soil without listing the detection limit. Please reference the detection limit for lead given in Table 3-10 in the Quality Assurance Project Plan (QAPP, Appendix B), titled Inorganic Target Analyte List Detection Limits.

Response to Comment:

The detection limit for lead analysis will be included in the main text of the report.

Comment No. 9:

Section 3.5.3: Please reference the detection limit for lead in the soil listed in Table 3-10 of the QAPP.

Response to Comment:

See response to Specific Comment No. 8.

Comment No. 10:

Table 1: Please add the appropriate phase numbers to the corresponding excavation areas.

Response to Comment:

Appropriate phase numbers will be added in Figure 5.