5090
Ser 1811GM/L2409
16 Sep 92

Ms. Virginia Lasky
Department of Toxic Substances Control
700 Heinz Ave., Suite 200
Berkeley, CA 94710

Subj: SITE 5 ADDITIONAL SAMPLING FOR THE RI/FS, NAS ALAMEDA

Dear Ms. Lasky:

We are providing as enclosure (1), a clarification on the Site 5 (Building 5) additional sampling requirements, as requested by Mr. Chein Kao during our meeting on 19 August 1992.

If you have any further questions regarding this matter, the point of contact is Mr. Gary J. Munekawa, Code 1811GM, (415) 244-2524.

Sincerely,

Original signed by:

LOUISE T. LEW
Head, Installation Restoration Section

Encl: (1) Clarification on the Site 5 Additional Sampling

Copy to:
California Regional Water Quality Control Board (Attn: Janette Baxter)
U.S. Environmental Protection Agency (Attn: Julie Anderson)
NAS Alameda (Attn: Randy Cate)
NAD Alameda (Attn: Paul Pentony)
PRC Environmental Management, Inc (Attn: Duane Balch)
James M. Montgomery Consulting Engineers (Attn: Ken Leung)

Blind copy to:
1811, 1811GM, 1811GK, Admin Record (3 copies)
Writer: G. J. Munekawa/1811GM/x2524
Tyist: Martha
File: Alameda/NAS

749

CLARIFICATION ON THE SITE 5 ADDITIONAL SAMPLING

Background

A work plan describing investigative work in the Building 5 plating shop was submitted to the Department of Substances Control (DTSC) by the Navy on March 13, 1992. The DTSC submitted comments on the work plan to the Navy in a letter dated April 14, 1992. A response to those comments was submitted to the DTSC on May 5, 1992. The DTSC approved the work plan in a letter dated May 7, 1992. A draft final report presenting the results of the investigation was submitted to DTSC by the Navy on August 4, 1992 (PRC/Montgomery, 1992a).

The approved work plan included the installation of a total of 10 soil borings in the Building 5 (Site 5) plating shop; five borings on either side of the sub-floor dividing wall separating the cyanide process line from the chrome process line. As described in the August 4, 1992 report, at the time of the investigation approximately 6 inches of water and/or plating fluids were present on the concrete sub-floor on the cyanide side of the dividing wall. Repeated attempts to start the pump on the cyanide side of the sub-floor and remove the fluid failed. Since cutting the sub-floor to allow soil sampling would have resulted in the water and/or plating fluids draining into soils below the building, sampling underneath the cyanide process line was not performed. Thus, only four shallow borings and one deep boring were installed on the chrome process line side of the plating shop.

Based on groundwater level measurements presented in the Phases 2B and 3 Draft Data Summary Report, the chrome process line is located hydraulically upgradient of the cyanide process line (PRC/Montgomery, 1992b). The gradient in the Building 5 area is very flat; 0.003 feet per foot in November and December 1991 (PRC/Montgomery, 1992b).

Results

Analytical results for samples collected from beneath the chrome process line indicate cyanide is present in both soil and groundwater. Cyanide was detected in 10 of the 12 soil samples collected at concentrations ranging from 0.02 to 2.9 milligrams per kilogram (mg/kg). Groundwater samples contained cyanide at concentrations ranging from 166 to 4,550 micrograms per liter (µg/L).

Recommendation

Due to the presence of cyanide in soil and groundwater located slightly upgradient of the cyanide process line of the plating shop, the additional five borings should be installed to further characterize the extent of cyanide in soil and groundwater. Soil and groundwater samples collected immediately beneath the cyanide process line will provide an indication of the magnitude of contamination at the presumed source area. Boring locations will be selected in the field based on the presence of piping and other obstacles between the raised wooden flooring and the concrete sub-floor.

The fluids previously present on the sub-floor have been removed. Due to the levels of cyanide detected in the five borings previously installed, the health and safety requirements for personnel performing the work are being re-evaluated and appropriate upgrades in personal protective equipment are being selected. The Navy will inform the

DTSC of the final schedule for conducting the work when revisions to the health and safety plan are complete and subcontractors (drillers, Level B equipment supplier) have been selected.

The scope of work will remain the same as that proposed in the approved work plan. Four of the borings will be drilled to depths of 5 feet; the fifth will be located adjacent to the 18-foot deep sump used to drain the sub-floor and will be drilled to a depth of 23 feet. Two soil samples will be collected in each of the shallow borings; one immediately beneath the sub-floor and one at a depth of 5 feet. In the deep boring, soil samples will be collected immediately beneath the sub-floor, at a depth of 5 feet, at a depth equal to the bottom of the sump (18 feet) and 5 feet beneath the bottom of the sump (23 feet).

At the conclusion of this sampling, an addendum to the draft final version of the report titled "Data Summary Report, Background and Tidal Influence Studies and Additional Work at Sites 4 and 5" (PRC/Montgomery, 1992a) will be prepared. The addendum will include recommendations for additional characterization in the plating shop area as appropriate, based on the results of all 10 borings.

References

PRC/James M. Montgomery (PRC/Montgomery), 1992a. NAS Alameda, Alameda, California, Data Summary Report, Background and Tidal Influence Studies and Additional Work at Sites 4 and 5, Draft Final. Prepared for Navy WESTDIV, August 4, 1992.

PRC/Montgomery, 1992b. NAS Alameda, Alameda, California, Data Summary Report RI/FS Phases 2B and 3, Draft Final. Prepared for Navy-WESTDIV, April 1992.