DEPARTMENT OF THE NAVY
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03 AUG 1995

From: Commanding Officer, Navy Environmental Health Center
To: Commander, Engineering Field Activity, West, Naval Facilities Engineering Command, Attn: George Kikugawa, 900 Commodore Drive, San Bruno, CA 94066-5006

Subj: MEDICAL REVIEW OF INSTALLATION RESTORATION PROGRAM DOCUMENTS FOR NAVAL AIR STATION, ALAMEDA, ALAMEDA, CA

Ref: (a) ENGFLDACTWEST ltr 5090 Ser 1831.2/5161 of 28 Jun 95

Encl: (1) Medical Review of Field Investigation Work Plan for Supplemental Soil Investigation for Engineering Evaluation/Cost Analysis, Site 7C Former Location of Building 547, Naval Air Station, Alameda, Alameda, California
(2) Medical/Health Comments Survey

1. As you requested in reference (a), we completed a medical review of the "Field Investigation Work Plan for Supplemental Soil Investigation for Engineering Evaluation/Cost Analysis, Site 7C Former Location of Building 547, Naval Air Station, Alameda, Alameda, California." The attached comments are included for your information as enclosure (1).

2. Please complete and return enclosure (2). Your comments are needed to continually improve our services to you.

3. The points of contact for this review are Ms. Mary Ann Simmons or Mr. David McConaughy, Health Risk Assessment Department, Environmental Programs. If you would like to discuss this medical review or if you desire further technical assistance, please call them at (804) 444-7575 or DSN 564-7575, extension 402 and 434, respectively.

A. F. JONES
By direction

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MEDICAL REVIEW OF INSTALLATION RESTORATION DOCUMENT

Ref: (a) Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA, October 1988 (EPA/540/G-89/004)
(b) Risk Assessment Guidance for Superfund, Vol.1, Part A: Human Health Evaluation Manual, December 1989 (EPA 540/1-89/002)

General Comment: The draft document entitled "Field Investigation Work Plan for Supplemental Soil Investigation for Engineering Evaluation/Cost Analysis, Site 7C Former Location of Building 547, Naval Air Station, Alameda, Alameda, California," dated 15 June 1995 was provided to the Navy Environmental Health Center for review on 18 July 1995. The report was prepared for ENGFLDACT WEST by Moju Environmental Technologies.

Review Comments and Recommendations:

1. Page 4, Section 3.2, "Quality Assurance/Quality Control Sampling":

Comment: This section indicates that matrix spikes, matrix spike duplicates and sample duplicates will be prepared in accordance with the approved Quality Assurance Project Plan (QAPP). This document is cited other times throughout the Workplan. We were not provided a copy of the QAPP and therefore cannot evaluate portions of this plan to which it refers.

Recommendation: Ensure all sampling protocols are consistent with EPA procedures. Since many details from the QAPP are important to gain a full understanding of the site work, we recommend attaching the QAPP to the Workplan as an appendix.

2. Page 5, Section 4.2, "Sample Locations":

Comments:

a. The second sentence states that the sample analysis that may be performed is summarized in Table 2. Table 2 is not included in this document.

b. The text does not address either the collection, or the locations of background soil samples (surface and subsurface). Information is not presented to determine whether sufficient background samples will be, or have been collected, and if applicable which proposed samples will serve as background samples.

Recommendations:

a. Include Table 2 in the final document.

b. Include in the text a discussion concerning the specific samples that will be collected to determine background concentrations.

c. Provide a map to show the locations of background samples and discuss the rationale for selecting particular locations.

3. Page 6, Section 4.2, "Sample Locations":

Comments:

a. The last paragraph contains a sentence that states "At locations where the surfaces are asphalt-paved, the samples will be collected at approximately 3 inches below the asphalt base and the sandy fill." If the intent is to use these samples to determine surface soil exposures, this is not consistent with EPA guidance, and, if followed, would yield unrealistically conservative risk estimates for surface soil exposure pathways.

b. Health risk assessments for surface soil exposure pathways presume daily contact with surface soils. Where there is asphalt, concrete, or other base course surfacing, such contact will not occur. There is no EPA guidance which suggests that surface soil pathways should be considered when a surface soil pathway does not exist.

c. Appendix A to 40 CFR Part 300 (Environmental Protection Agency, Hazard Ranking System, Final Rule, published in the Federal Register, Vol. 55, No. 241, December 14, 1990) contains the only explicit guidance on sampling/nonsampling of asphalt/concrete/base course surfaces that we are aware of. The fourth paragraph of Section 5.0, "Soil Exposure Pathway, subsection 5.0.1, "General Considerations" states: "If an area of observed contamination (or portion of such an area) is covered by a permanent, or otherwise maintained, essentially impermeable material (for example, asphalt) that is not more than two feet thick, exclude that area (or portion of that area) in evaluating the soil exposure pathway."

d. Soil samples collected below the surface should always be considered subsurface soil samples. Although subsurface soil results should not be used in calculations of surface soil exposure pathways, they can be used in a health risk assessment to estimate risk for potential future construction scenarios, which might entail subsurface soil disturbance of the asphalted cover. When this is done, the report should clearly state that subsurface soil results are being used to estimate potential future scenarios.

Recommendations:

a. Specify in the Workplan that subsurface soil samples may be collected from areas with essentiallly impermeable surfaces (e.g., asphalt), but surface soil sampling in such areas would be inappropriate, and therefore will not be conducted.

b. Specify that subsurface soil results below asphalt will be used only to calculate risk for appropriate exposure scenarios; specify the appropriate exposure scenarios (e.g., potential future construction exposures.)

4. Page 6, Section 4.3, "Sampling Procedures":

Comments:

a. The first sentence states "Soil samples will be collected from the soil surface, and at 2.5 feet, 5.0 feet below ground surface. . ." Surface soil is not defined.

b. Reference (b) defines surface soil samples as samples taken from depths of zero to six inches. The Agency for Toxic Substances and Disease Registry defines "surface soil" samples as soil samples taken from depths of zero to three inches, and "subsurface soil" samples as samples taken at depths greater than three inches.

Recommendation: We recommend adopting the "zero to three inches" as the norm for surface soil sample collection. Adopting this sampling protocol does not contradict current EPA guidance, since reference (b), on page 4-12, directs that surface soil samples should be collected "from the shallowest depth that can be practically obtained" to accurately reflect potential surface soil exposure pathways.

FROM: _____
(YOUR NAME/COMMAND)

TO: NAVENVIRHLTHCEN, ENVIRONMENTAL PROGRAMS

FAX: COM: (804) 444-7261/DSN: 564-7261

MEDICAL/HEALTH COMMENTS - YOUR VIEW

Please help us improve our review process by indicating the extent to which you agree or disagree about the comments we provided for to your activity.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. "Value added" to IR/BRAC process?	1	2	3	4	5
2. Received in a timely manner?	1	2	3	4	5
3. High level of technical expertise?	1	2	3	4	5
4. Very useful to the RPM?	1	2	3	4	5
5. Contractor incorporated comments?	1	2	3	4	5
6. Easily readable/useful format?	1	2	3	4	5
7. Overall review was of high quality?	1	2	3	4	5
8. NAVENVIRHLTHCEN was easily accessible?	1	2	3	4	5
9. NAVENVIRHLTHCEN input during scoping or workplan development would be "value added"?	1	2	3	4	5
10. Added involvement in IR/BRAC document needed?	1	2	3	4	5

Please return by fax using the box provided at the top of this page. If you have any other comments, please list them below or call Mr. David McConaughy, Health Risk Assessment Department, at (804) 444-7575, or DSN 564, extension 434, at any time to discuss your viewpoint. As our customer, your comments and suggestions of how we can improve our services to you are important!