UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105-3901

27 June 1996

Ms. Darlene Ige
Department of the Navy
Pacific Division
Naval Facilities Engineering Command
(Makalapa, HI)
Pearl Harbor, Hawaii 96860-7300

Re: Draft Removal Action Decision Document for the Removal Action at Red Hill Stilling Basin, Fleet and Industrial Supply Center, Pearl Harbor, Hawaii

Dear Darlene:

The U.S. Environmental Protection Agency (EPA) has received the Draft Removal Action Decision Document (RADD) for the Removal Action at Red Hill Stilling Basin, Fleet & Industrial Supply Center, Pearl Harbor, Hawaii, dated March 1996. We have reviewed the above document and our comments are enclosed.

If you have any questions, please contact Xuan-Mai Tran at (415) 744-2386.

Sincerely,

Lewis Mitani
Remedial Project Manager

cc: Mike Miyasaka, DOH
Donald Gruber, URS

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REVIEW COMMENTS FOR
DRAFT REMOVAL ACTION DECISION MAKING FOR
REMOVAL ACTION AT RED HILL STILLING BASIN
FLEET AND INDUSTRIAL SUPPLY CENTER
PEARL HARBOR, HAWAII

The Draft Removal Action Decision Document (RADD) appears to cover the essential elements when reviewed against the Remedial Action Report/Operable Unit Completion Closeout Procedures for National Priorities List Sites. Although more detailed information regarding the Removal Action (RA) can be found in other references, the RADD should include a summaries with sufficient information to allow a reader unfamiliar with the site to understand the steps undertaken for this removal action. Also future we suggest future RADDS include the following:

1. A list of acronyms is recommended for the reader's convenience.

2. **Introduction:**

This section provides a general description of the site and remedy implemented (i.e., site location and description, history, components of the selected remedy, and specific contaminants of concern). Sufficient information should be specific provided to allow a reader unfamiliar with the site to understand the information presented in the RADD. The RADD already covers most of the above items, except for a summary of the components of the selected remedy. Also, a site map such as Fig 2-1 from the Final Remediation Verification Report should be included.

3. **Chronology of Events**:

This section provides a summary of the major events associated with this RA (i.e., the date the design documents was approved, etc.). Suggest information from the first complete paragraph, p. 3, (i.e., public review, documents submittal, etc.) can be moved to this section.

4. **Performance Standards and Construction Quality Control**:

This section is the most important section of the RADD. Performance Standards are the criteria or requirements the RA contractor should meet to complete the project. Performance Standards include cleanup levels, quality criteria, and other substantive requirements. Each Performance Standard should be addressed by providing the standard, the maximum level permissible, the results of field sampling, the basis for the determination that the standards was met, and the location of and frequency of the tests.

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This section of the RADD should also provide a summary of the implementation of the construction quality control plan and provide an assurance that the RA is complete. A table should be included that lists the types of samples taken and provides a comparison of test results with the specified standards to be achieved by the RA.

5. **Construction Activities**:

This section is a narrative description of the construction activities undertaken for the RA. Quantities excavated, cleanup levels achieved, and materials and/or equipment used should be addressed in this section and may be presented in tabular format in support of the narrative. The name and specific role of the major design and RA contractors should be provided.

This is also the section where information on "lesson learned" should be provided. While a major portion of this narrative will deal with problems encountered during the construction, successes should be documented as well. Included in the discussion of problems should be the options considered, the process used to select a final solution, and the causes of any delays encountered. The discussion of successes should include time or cost savings measures employed or the use of innovative solutions to problems encountered.

6. **Final Inspection**:

This section documents the pre-final and final inspections conducted by the Navy and the contractor at the completion of this RA. This section should contain a summary of the confirmation results and a list of attendees at the inspections(s).

7. **Certification that Remedy is Operational and Functional**:

For this RA, the ceritification will be an affirmation that performance standards have been met. The basis for the determination should also be provided.

8. **Operation and Maintenance**:

This section should discuss the highlights of the operation and maintenance plan, as well as provide insight to potential problems/concerns (i.e., the maintenance of the low-permeability cap to minimize the potential downward migration of residual contamination to the underlying basal aquifer).

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9. **Summary of Project Costs**:

This section should provide the final costs for the project and compare them to the original RA estimate. Presentation of this information may be in tabular or narrative form. The need for and cost of any modifications during the RA should be noted in this section.

10. **Data Validation:**

This is an important section and should provide a summary of the data validation process. Information on data analysis should also be summarized (i.e., percentage accepted, percentage rejected, etc.). Any environmental decision relies on the quality of the data. Under EPA ORDER 5360.1 implementing the NCP, data must be of known quality.

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COMMENTS ON SECTION 5 AND APPENDIX C OF THE REMEDIATION VERIFICATION REPORT RED HILL STILLING BASIN PEARL HARBOR

General Comments:

1. The exceedance of preservation temperature is more severe than discussed. All volatile organic compounds (VOCs) and TPH-gasoline non-detect results should have been rejected. Detectable VOC results and pesticide, semivolatile results may be biased low, but potentially too low to be usable. The corrective action for this problem would be to resample for all analyses, and identify and rectify the reason for the exceedance. However, this corrective action was not taken since samples collected in January and February exhibited this problem and the problem was not resolved during July sampling activities.

2. The method of assessing analytical data quality is not clear. Quality control samples were collected and analyzed as required; however, the QC acceptance criteria is not specified. It is not acceptable to indicate that <u>either</u> "EPA or laboratory-established acceptance limits" were used (Section 5.4.4). These criteria must be identified within the report. In addition, the actual QC results and statistical summary should be listed (preferably Table C-7); the current Table C-7 is insufficient. EPA cannot adequately review this document for acceptable data quality without this information.

3. The evaluation of data quality indicators (Section 5.4.6) contains some erroneous statements. If laboratory relative percent difference (RPDs) are outside acceptable limits due to matrix heterogeneity, then this same phenomena would affect field duplicate results as well. Field duplicates incorporate both field, matrix, and laboratory precision; matrix spike/matrix spike duplicate (MS/MSD) comparisons only incorporate matrix and laboratory precision. Also, it is not clear what type of RPDs are out of control (MS/MSD?). It is more likely that the RPD exceedance is sporadic, although all RPDs should be reviewed for systematic occurrences.

   Substantiation of the accuracy conclusion should be presented. If actual recoveries were presented, then this statement may be acceptable (see comment No. 2). It should be noted that just because recoveries do not meet acceptance criteria due to demonstrated matrix effect (and the LCS is okay), the data is not necessarily usable. Very low recoveries which cannot be overcome using accepted methods (due to no fault of the laboratory) may still be unusable data.

   The completeness should be recalculated when the temperature preservation problem is included and the above observations are resolved.

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4. The data validation packages need to be included in the report. Otherwise, it should be indicated when and were the analytical data sheets and associated data validation summary reports will be presented. The report is considered incomplete until this information is provided.

5. The conclusions drawn in Section 5.3.7 regarding the lack of analytical results for three of the samples is insufficient. In particular, Aroclor 1260 cannot be eliminated as a contaminant based upon TPH-diesel results. Other sample results indicate that the presence and concentration of this analyte is not related to TPH-diesel results. However, the conclusion could be drawn for PAHs and metals based on the history of the site. If the source of the Aroclor 1260 contaminant is identified, the lack of PCB results for these samples may be acceptable. Also, the statement about the "relatively low concentrations of TPH in comparison to the maximum TPH results" is misleading: 2,900 mg/kg is not low compared to 4,200 mg/kg.

Specific Comments:

1. Section 5.2, page 5-2: The PARCC discussions appear to have come from a sample plan, not a summary of results. Please state the goals and provide a brief discussion in each PARCC subsection whether the goals were achieved for the project.

2. Section 5.3.2, page 5-5: The analytical results also contain toluene and ethylbenzene; please add these to the discussion in this section.

3. Section 5.3.5, page 5-6: Full analytical confirmation should be clearly defined.

4. Section 5.3.8, page 5-7: Provide a discussion of soil sample results, to be consistent with all other similar sections.

5. Section 5.3.9, page 5-8: Table 5-8 cannot be located in Appendix C.

6. Section 5.4.5, page 5-11: Table 5-10 cannot be located in Appendix C.

7. Section 5.4.5, page 5-11: Why was motor oil used as the spiking constituent instead of diesel fuel. Which type was seen more often in the samples? Can motor oil recoveries be used to indicate diesel recoveries?

8. Table C-2, page 1: There are no results for Aroclors 1254 and 1260. Please provide this data.

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