

**NAS MOFFETT FIELD OPERABLE UNIT 6  
RESPONSE TO COMMENTS ON DRAFT BASELINE HUMAN HEALTH  
RISK ASSESSMENT WORK PLAN  
OCTOBER 1, 1993**

**1.0 INTRODUCTION**

This report presents point-by-point responses to comments received from regulatory agencies for the draft baseline human health risk assessment work plan dated July 1, 1993 for operable unit (OU) 6 at Naval Air Station (NAS) Moffett Field, California. The comments were received from Mr. Michael Gill of the U.S. Environmental Protection Agency (EPA) in a letter dated August 2, 1993. Ms. Elizabeth Adams of the California Regional Water Quality Control Board, San Francisco Bay Region (RWQCB) had no additional comments in her letter dated August 12, 1993.

The OU6 baseline human health risk assessment work plan was extensively modified to address EPA comments. The following sections address the general, specific, and editorial comments.

**2.0 GENERAL COMMENTS**

Comment Number 1. EPA has found this document to be deficient in critical areas and inadequate for the purposes of a work plan. The current document presents an extensive background presentation of the area including past sampling results and current sampling efforts. However, the outline of the risk assessment is only a repeat of what is contained in the general Risk Assessment Guidance (RAGS) for Superfund guidance. A site specific work plan must discuss, based on the current site conceptual model, the chemicals of concern from the scoping process and whatever sampling has already been done, possible complete exposure routes, possible receptors, and data gaps that will limit the risk characterization. The work plan then should present the methodology for how the work will be done to fill those gaps. The proposed work plan should include a schematic of possible releases, media transport, exposure routes and possible receptors that will be evaluated in the risk assessment and the exposure parameters that will be used in the calculations. Additionally,

preliminary remediation goals can be calculated for those exposure routes and receptors that have been identified. The revision of this document must include all of these aspects or reference previous OU risk assessments, if appropriate.

*Response:*

*Section 5.0 of the OU6 Baseline Human Health Risk Assessment Work Plan has been completely revised. It now includes a current site conceptual model, describes how chemicals of concern (COC) will be selected, and identifies potential human receptors and exposures, and data gaps. Section 4.0 describes the sampling plan that will be followed to collect additional samples to fill the data gaps. A schematic diagram of potential receptors and exposure pathways has not been included in the draft final work plan, however, potential receptors and exposure pathways have been evaluated and the results of the evaluation are presented in Tables 3 through 15. In addition, preliminary remediation goals (PRG) were not calculated for the work plan, because it is necessary to know site-related risks to do so. PRGs will be evaluated in the early stages of the FS.*

Comment Number 2.

The figures in the document are not always in order or referenced; sometimes they do not appear at all.

*Response:*

*References to figures have been carefully checked and corrected.*

Comment Number 3.

More detail is needed to describe the path the Navy may take if a human health risk is found at OU6. It would help if a little history were presented here, possibly a summary of the remedial project manager (RPM) meeting discussion of March 23, 1993, where the idea of performing a human health baseline risk assessment was presented. EPA understands from the March 23, 1993 meeting that if the outcome of this workplan shows it necessary, a human health Feasibility Study and Record of Decision will be written for OU6. If no risk is found, any human health considerations will be forwarded to the station-wide remedial investigation/feasibility study (RI/FS) process and be considered from a cumulative risk perspective. More detail on this subject should be presented.

*Response:* After the baseline human health risk assessment is complete, OU6 will move into the FS portion of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) RI/FS process. If the baseline human health risk assessment indicates no risk to human health at OU6, a no action alternative will be pursued and a no action proposed plan written. Alternatively, if the baseline human health risk assessment does determine human health risks associated with chemicals at OU6, the evaluation of remedial alternatives will be in an FS.

### 3.0 SPECIFIC COMMENTS

Comment Number 1. Section 3.2, Page 9, Paragraph 2. More effort should be made to locate HAZWRAP, EBASCO, and EKI data studies to provide a clearer historical perspective for OU6.

*Response:* HAZWRAP, EBASCO, and Erler and Kalinowski, Inc. (EKI) reports have been located and were reviewed to provide a clearer historical perspective for OU6. The statement regarding the quality of data has been eliminated from the work plan and will be addressed in the OU6 baseline human health risk assessment report.

Comment Number 2. Section 3.2.1.2, Page 10, Paragraph 1. It appears that Figure 11 should be Figure 9.

*Response:* All figures have been renumbered and carefully referenced in the text of the draft final OU6 work plan.

Comment Number 3. Section 3.2.1.2, Page 1, Paragraph 1. The Figure 12 reference appears incorrect.

*Response:* All figures have been renumbered and carefully referenced in the text of the draft final OU6 work plan.

Comment Number 4. Section 3.2.1.4, Page 11, Paragraph 1. No references to metals appear in Figure 7. Also in this paragraph, the concentration of calcium as 0.5.4 (third line from the bottom of the page) does not make any sense.

*Response: References to specific chemical concentrations detected in previous investigations have been eliminated from the work plan, and will be addressed in the OU6 remedial investigation report. Consequently, Figure 7 of the draft work plan has been eliminated. The concentration of calcium referred to should have read "5.4."*

Comment Number 5. Section 3.2.2.1, Page 12, Paragraph 1. Please annotate Figure 11, the extent of the TCE plume, with a date.

*Response: Figure 11 has been eliminated from the work plan because it did not contribute to the understanding of the proposed field work or the proposed human health risk assessment process.*

Comment Number 6. Section 3.2.2.2, Page 12, Paragraph 1. Figure 15 does not exist.

*Response: The reference to Figure 15 in the draft work plan should have been to Figure 12. All figures have been renumbered and carefully referenced in the text of the draft final OU6 work plan.*

Comment Number 7. Section 4.2.1, Page 15, Paragraph 2. Is the description of how intrusive holes will be "filled with bentonite pellets" detailed in any other documents? Please provide a reference if available.

*Response: All intrusive samples were eliminated during the revision of the OU6 work plan because a residential scenario will not be evaluated. Abandonment with bentonite pellets is not necessary for surface soil sampling locations. Consequently, the sentence referring to filling holes with bentonite pellets has been deleted.*

Comment Number 8. Section 4.2.1.1, Page 17, Paragraph 1. As mentioned on page 21, paragraph 1, risk calculations should be performed for all possible scenarios of future use. The statement here that "Future use will likely be the same as current use" is a premature statement.

*Response:* *Although the future land use evaluation for NAS Moffett Field has not been completed, preliminary results indicate that OU6 operations and exposure conditions are not likely to change significantly from present conditions. Future exposure scenarios for which risk calculations will be estimated include occupational and recreational. These scenarios have both been considered in Section 5.0. The rationale for selecting these exposure scenarios is presented in the draft final work plan.*

Comment Number 9. Section 5.0, Page 19, Paragraph 1. Table 3 does not exist in this document.

*Response:* *All tables have been renumbered and carefully referenced in the text of the draft final OU6 work plan.*

Comment Number 10. Section 5.1, Page 20, Paragraph 2. Metals should also be included as chemicals of potential concern at OU6.

*Response:* *Section 5.0 of the work plan has been extensively modified since the draft work plan was written. The baseline human health risk assessment will include an evaluation of metals as chemicals of potential concern at OU6.*

Comment Number 11. Section 6.0, Page 22, Paragraph 1. The introduction of this report should review the history of what path the Navy will take if a human health risk assessment is necessary at OU6. See general comment #3 above.

*Response:* *The course of action the Navy takes will depend on the estimated human health risks. However, the CERCLA RI/FS process will be explicitly followed.*

Comment Number 12. **Figure 5.** This figure is never referenced by the text.

*Response:* *All figures have been renumbered and carefully referenced in the text of the draft final OU6 work plan.*

#### **4.0 EDITORIAL COMMENTS**

Comment Number 1. **Section 1.0, Page 2, under Paragraph 1.** In the breakout of operable units, please designate both East and West OU2 sites as SOILS.

*Response:* *The reference to OU2-East and OU2-West now appear in Section 3.0 in the third paragraph on page 2. Both include the "soils" designation.*

Comment Number 2. **Section 3.2.1.1, Page 10, Paragraph 1.** Units designations for micrograms/kilogram would be more understandable as ug/kg instead of g/kg. The Greek symbol  $\mu$  for micro would be most preferable instead of u.

*Response:* *The abbreviation of micrograms per kilogram has been corrected to use the Greek symbol  $\mu$  for micro wherever it appears in the text of the draft final OU6 work plan.*

Comment Number 3. **Section 4.2.1, Page 14, Paragraph 2.** It would make more grammatical sense if sentence two read "Samples for laboratory submittal...".

*Response:* *When the work plan was revised, the sentence was eliminated, and the content of the paragraph clarified.*

Comment Number 4. **Section 4.2.1, Page 14, Paragraph 3.** In the very last line on the page, please annotate Q with degrees C or F, as appropriate.

*Response:* *The "Q" in the draft work plan should have been "4°C." All references to the temperature at which samples should be kept have been corrected in the draft final OU6 work plan.*

Comment Number 5. Section 4.2.1, Page 15, Paragraph 2. Please provide a full name for USCS in the acronym list and text.

*Response: The acronym "USCS" has been defined in the acronym list and in the first paragraph of Section 4.1.1 on page 8 of the draft final work plan.*

Comment Number 6. Section 4.2.1., page 15, Paragraph 4. Please provide an explanation of the vertical and horizontal accuracies, for example, \_1.0 foot horizontally.

*Response: The "\_1.0 foot" and "\_0.1 foot" terms in the draft work plan should have indicated an error of "±." The references to vertical and horizontal accuracies have been corrected in the second paragraph of Section 4.1.1 on page 8 of the draft final work plan.*