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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IV
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ATLANTA. GEORGIA 30365

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NAS PENSACOLA
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FEB 09 1995

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CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Commanding Officer
Attn: Mr. Bill Hill - Code 1851
Southern Division
NAVFACENGCOM
P.O. BOx 190010
North Charleston, South Carolina 29419-9010

Subj: Draft Remedial Investigation Report for Operable Unit 12
(Site 39: Oak Grove Campground)
Naval Air Station (NAS) Pensacola, Florida
EPA Site ID No.: FL 9170024567

Dear Mr. Hill:

The Environmental Protection Agency (EPA) has completed its review of the Draft Remedial Investigation Report for Operable Unit (OU) 12 (Site 39: Oak Grove Campground), which was received in this office on November 30, 1994. Our comments are enclosed.

In accordance with the expedited schedule which the Parties developed for OU 12, EPA looks forward to resolving the issues addressed in our comments at the February Project Manager's meeting and receiving a revised RI Report which adequately addresses all Parties' concerns at the March Project Manager's meeting.

Please contact me at (404) 347-3016 if you have any
9 questions or wish to discuss these issues further.

Sincerely Yours,

Allison D. Humphris
Remedial Project Manager
Department of Defense Remedial Section
Federal Facilities Branch

Enclosure

cc: Ron Joyner, NAS Pensacola
Eric Nuzie, FDEP
Henry Beiro, Ensafe/Allen & Hoshall

TECHNICAL REVIEW AND COMMENTS
DRAFT REMEDIAL INVESTIGATION REPORT
SITE 39 (OAK GROVE CAMPGROUND)
NAVAL AIR STATION (NAS) PENSACOLA
PENSACOLA, FLORIDA

GENERAL COMMENTS :

1. The primary purpose of the RI Report is to document current site conditions, since this is the information which will be used to characterize the site for purposes of developing and evaluating appropriate remedial alternatives. As such, the focus of the RI should be on presenting and describing these conditions. Historical (e.g. pre-removal) site data should be presented in the appropriate sections of the RI (e.g. site history, previous investigations, etc.) instead of comprising a major part of the RI Report "proper" (i.e. Sections 5.0 - 11.0). Ideally, all information used to support the removal action should be thoroughly documented and presented in the Removal Action Work Plan, eliminating the need to include anything more than a summary of pre-removal site conditions in the RI. However, if the time constraints associated with the removal action process preclude thorough documentation of this information in the appropriate removal documents, the RI Report may provide an acceptable alternative for documenting this information. Major revision of the entire RI Report is not necessary. However, the Baseline Risk Assessment must be revised to eliminate the pre-removal data and risk evaluations. This comment must also be taken into consideration in preparing future documents for all IR sites at NAS Pensacola, including future documents to be prepared for Site 39 (i.e. Proposed Plan and ROD).

2. The values presented in this document as USEPA-RBC's are often incorrect. The Region III document "Selecting Exposure Routes and Contaminants of Concern by Risk-Based Screening" (March 18, 1994) should be used, and clearly referenced, throughout the document. This table sets the risk level at 10^{-6} and the hazard quotient at 0.1. All soil screening should use the residential soil values included in this table.

3. The document should be consistent throughout in the use of the terms "reference" or "background" concentrations (see, for e.g., Table 10-3). Please revise as needed.

4. The document should be consistent throughout in use of the term COC to refer to Chemicals of Concern (rather than Contaminants of Concern). Also, COPCs (chemicals of potential concern) is used in the text without definition. Please revise as needed.

5. As required by the Comprehensive Sampling and Analysis Plan, all data and site maps must be submitted in electronic format.

SPECIFIC COMMENTS:

1. Page viii:
Indicate that RAGS is Risk Assessment Guidance for Superfund: Volume 1 - Human Health Evaluation Manual (Part A).

2. Page 2-2, Figure 2-1:
This figure shows an area labeled "backfill stockpile" but it is not explained in the text. It would help to refer to this figure in the discussion of the soil removal (e.g., Section 5.0, page 5-1).

3. Pages 5-2 through 5-3, Tables 5-1 and 5-2:
A. Should the title of Table 5-1 read: "Contamination Assessment and Confirmation of Clean-up"? Please check and revise as needed.

B. It would be helpful to include the number of samples, as well as sample numbers, in these tables.'

4. Page 5-5, Figure 5-1:
A. Since this is the key figure illustrating the locations of all soil samples collected for Site 39, it should be revised to clearly indicate the purpose for each sample collected (e.g. screening, contamination assessment, confirmation, stratigraphic exploration, physical characterization) as discussed in the text. This may be done through the use of different symbols or by labeling each soil boring location.

B. A figure illustrating the extent (both horizontal and vertical) of the removal action conducted for soils at this site is needed. This will facilitate the reader's understanding of exactly which samples can be used to characterize pre-removal versus post-removal conditions at the site.

5. Page 6-4, Figure 6-2:
This figure appears to illustrate VOC concentrations in groundwater, not water level changes in shallow and intermediate wells, as indicated in the figure title. Please check and revise as needed.

6. Pages 7-1 through 7-43, Section 7:
The text and figures throughout this section should all clearly distinguish between surface and subsurface soil data.

7. Page 7-2, Table 7-1:
The screening value for toluene should be 1,600,000 ug/kg rather than 16,000,000 ug/kg. The screening value for trichloroethene should be 47,000 ug/kg rather than 58,000 ug/kg. Please make the necessary corrections.

8. Page 7-27, Paragraph 1:
Please include the reference concentration for arsenic in this

paragraph.

9. Page 7-28, Paragraph 1:
Should the reference in this paragraph be to benzo(a)pyrene rather than to pyrene? Please check and revise as needed.

10. Page 7-29:
According to the text, three metals (sodium, calcium, and magnesium) were detected at concentrations exceeding NAS Pensacola reference concentrations in post-removal soil samples. All metals which exceeded the reference concentrations should be discussed in the text, including lead and chromium.

11. Pages 7-35 through 7-39, Table 7-7:
A. This table would be less cumbersome if the screening values were presented on a separate table and only one column in Table 7-7 was devoted to illustrating the lowest appropriate screening value.

B. The contents of this table are somewhat confusing, since metals concentrations are listed for four shallow monitoring wells, yet only two rounds of sampling were conducted. According to the footnote, "d" indicates "the second round of sampling of monitoring wells conducted in June 1994". However, a "d" superscript/ subscript is not included in the table. Please modify the table to clearly show the date of sample collection, the appropriate well ID, and identify first and second round ground water samples.

C. No inorganic data for the intermediate wells are presented in tabular form, or perhaps the well numbers are mislabeled. Tables 7-6 and 7-7 indicate that the intermediate wells were sampled during the first round and the text briefly discusses metals concentrations detected in these wells, but the concentrations are not listed. The inorganic and organic data obtained from the intermediate wells should be summarized in a table and included in the appendix.

D. Not all of the notes included at the end of Table 7-7 are included in the table.

12. Page 7-41, Paragraph 6:
A. There is no USEPA-MCL for lead; 15 ug/l is the treatment technique action level (TTAL). Please revise as needed.

B. The statement in this paragraph that lead was detected at concentrations ranging from 2.5 ug/l to 5.2 ug/l is inconsistent with Table 7-7 (pages 7-35 through 7-39), which indicates that lead was detected at concentrations ranging from 16.2 ug/l to 65.2 ug/l. Please check and revise as needed.

13. Pages 9-3 through 9-4, Section 9.3:
The term "receptor" is generally used in referring to human or ecological receptors. Please use a different term in referencing

contaminated media or places (e.g. ground water zone).

14. Pages 10-1 through 10-2, Section 10.1:
Please revise the list of EPA guidance documents to include all "Supplemental Region IV Risk Assgssment Guidance."

15. Page 10-6, Paragraph 4:
"Sample results from the 0- to l-foot depth were used in this risk assessment." Please clarify how this data was used in the risk assessment. Since the excavation site was backfilled with a minimum of 1 foot of clean soil following the removal, this data will no longer meet the requirements of surface soil data.

16. Pages 10-10 through 10-11, Comparison of Site-Related Data to Screening Concentrations:
Please revise the text to clearly state that the screening values are set at hazard quotient equal to 0.1 and risk equal to 10^{-6}. Also, residential screening values should be used for all soils. It is inappropriate to use industrial soil values for screening purposes.

17. Page 10-16, Table 10-5:
Please include a definition for the "b" notation used in the table.

18. Pages 10-17 through 10-18, Table 10-6:
Please remove the industrial screening values from this table and replace them with residential screening values.

19. Page 10-20, Table 10-7:
A. The screening value for chromium should be the MCL of 0.1 mg/l.

B. TTMCL should be defined as the treatment technique action level, not the treatment technology based action level.

C. The RBC notation should include the corresponding hazard quotient and risk levels.

20. Pages 10-21 through 10-32, Section 10.3:
Since a minimum of one foot of clean fill was deposited on the site no surface soil pathways need to be evaluated in this risk assessment.

21. Page 10-27, Section 10.3.2:
Please revise the text to indicate that the details regarding the rationale for exposure pathway selection/ rejection are included in Table 10-8 rather than 10-9.

22. Page 10-29, Paragraph 3:
Please correct the format error in the presentation of the UCL formula.

23. Page 10-31, Section 10.3.4:
Please revise the text to reflect the most recent guidance on PAHs TEFs - "Provisional Guidance of Quantitative Risk Assessment of PAHs" (July 1993 - EPA/600/R-93/089).

24. Page 10-34, Figure 10-1:
A. Please present the equation for calculation of intake as one equation rather than two.

B. The units presented, mg/kg, are incorrect for the IF factor. As presented in this figure the IF factor should be in 1/kg.

C. The note on the bottom of page one of Figure 10-1 is inappropriate and should be removed.

D. Please revise the figure to include a definition of CDI.

25. Page 10-38, Table 10-12:
A. "Other is EPA documents" is not an acceptable reference for toxicity values. Please revise to reflect the EPA document from which the information was derived.

B. Please include the definition of "A" cancer classification in the notes section of this table.

26. Page 10-43, Table 10-13:
A. Presentation of risk, hazard index, and hazard quotient values should be as one significant figure (Table 10-13 and associated text).

B. The footnotes "0.0" and "0" on this table are inappropriate. Hazard quotient and hazard index values should be presented as one significant figure. Please revise as needed.

27. Page 10-57, Section 10.9:
While the information presented in this Ecological Assessment is basically good, the assessment should follow the outline discussed previously. That is, the ecological risk assessment must include sections entitled (i) Conceptual Model (including problem formulation), (ii) Chemicals of Potential Concern, (iii) Exposure Assessment (including information obtained through a habitat and biota survey), (iv) Ecological Effects Assessment, (v) Risk Characterization, and (vi) Uncertainties. Also, as noted previously, the risk assessment must be based solely on data or information reflecting current (i.e. post-removal) site conditions.

28. Page 10-59, Section 10.9.1:
A. Paragraph 1 states that "Soil samples were ...compared to two times the maximum reference concentration." The sentence should state that they were compared to twice the mean background concentration, as indicated in Section 7.1 (page 7-1).

B. Ground water chemical concentrations should be compared to the EPA Region IV Waste Division surface water screening values and the Florida surface water standards as a worst-case scenario of ground water contaminants discharging into a surface water body. This comparison should be shown in a table. Modifying factors such as dilution can then be mentioned.

C. Check the surface soil data used in this section and in Section 10.9.3. Only surface soil data from the backfill soils/ confirmatory samples and from non-removal areas should be used in this risk assessment. (If contaminated soils were removed, they would pose no future risk to potential ecological receptors at the site.)

29. Page 10-62, Section 10.9.3:
A. Do not mention other CERCLA sites by name in this document, especially not as justification for comparison of surface soils to sediment screening values.

B. Comparison of surface soil chemical concentrations to sediment screening values (e.g., the NOM Effects Range - Low and Effects Range - Median values) might be acceptable for soils located along surface water runoff pathways (i.e., soils with the potential to become sediments), but this comparison is discouraged for surface soils in general. Since the post-removal area of contaminated soils at this site is small, the ecological risk would appear to be small, based upon the limited potential for exposure.

For sites with greater potential for exposure, the terrestrial ecological risks should be determined differently (e.g. estimation of exposure based upon dietary intake modeling or tissue analyses, literature review on ecological effects of the contaminants, soil toxicity tests, etc.).

C. For SVOCs, ER-L and ER-M values are mentioned for PAHs in Florida sediments, yet the first paragraph in this section mentions that the ER-L and ER-M values are based upon data from samples throughout the United States. Please explain.

30. Page 10-64, Paragraph 1:
The last sentence is confusing. If it compares soil concentrations to Florida water quality criteria, the comparison is not appropriate. If it compares ground water concentrations to the water quality standards, this should be stated.

31. Pages 10-64 through 10-65, Potential for Species/Community Effects:
The statement about endangered and threatened species is appropriate. However, since Section 4.4.2, page 4-7, mentions nearby populations of Godfrey's golden aster, a state-designated imperiled plant species, add a statement about the occurrence of this species and the apparent lack of contaminant migration

pathways to those areas.

32. Page 11-4:
In order to streamline the preparation of decision documents for this site, and expedite selection of an appropriate remedial action for groundwater, EPA recommends that the RI be revised to propose "limited action" for all of Site 39 (i.e. soils and groundwater). This action would include no action for soils. To ensure that ground water is not adversely impacted, the monitoring wells should be sampled quarterly for the first year to monitor seasonal changes in the ground water chemistry. Once the quarterly data is obtained, it will be evaluated to determine appropriate ground water monitoring intervals until the 5 year review.

Although the first round of ground water samples indicated metals at concentrations above MCLs, the samples were turbid. The quiescent sampling technique used during the second round of sampling yielded nonturbid samples and resulted in low concentrations of metals (below MCLs) in ground water. Chlorinated solvents were detected in samples during both sampling rounds, but the concentrations did not exceed MCLs. Based on the second round of sampling, ground water appears to be minimally impacted by contaminated soils. Confirmatory soil sampling indicated that very low levels of pesticides, PAHs, metals and chlorinated solvents are present. Except for lead and chromium, the concentration of all these constituents are below EPA's draft soil screening guidance and should not pose a threat to ground water.

33. Appendix F:
A. Only the ground water analytical results for monitoring wells 39GS01, 39GS02, 39GS03, and 39GS04 (June 1993 sampling round) are included in this appendix. Please revise to include ground water analytical results for intermediate wells as well.

B. The ground water resampling data near the end of the appendix lists a well ID of 39GI03. This well does not exist at the site. Could this be well 39GI06?