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NAS WHITING FIELD
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LETTER REGARDING U S NAVY RESPONSE TO U S EPA REGION IV COMMENTS ON
SITE 41 DRAFT REMEDIAL INVESTIGATION NAS WHITING FIELD FL
12/1/2008
TETRA TECH NUS

**RESPONSE TO USEPA COMMENTS
ON DRAFT REMEDIAL INVESTIGATION REPORT FOR
OPERABLE UNIT 27, SITE 41
FORMER PESTICIDE STORAGE BUILDING 1485C
NAS WHITING FIELD**

EPA Comments issued 17 November 2008, from Mr. Craig Benedict to Mr. Tread Kissam NAVFAC SE.

1. **Cover and Title Page:** Please include the OU number as 0U-27 on the cover page as well as the title page.

Response: Will make this change.

2. **Acronyms, Page IX:** The Acronym for “B(b)F” should be defined as “benzo(b)fluorethene. The acronym for “COPC” should be defined as “Chemicals of Potential Concern”.

Response: Will make this change.

3. **Executive Summary, Page ES-1:** The first sentence of the paragraph, please change “NAVFAC SE” to “Navy”. Also in the first sentence, please spell out “RI” as “Remedial Investigation” as this is the first occurrence of acronym in the text. In the second sentence of the second paragraph, please delete “and recommendations”. Per EPA Remedial Investigation (RI)/Feasibility Study (FS) guidance, the RI report should not contain recommendations, just the details of the investigation. In the fourth sentence of the second paragraph, please have the word "potential" between “The” and “impact”. In the first sentence of the fourth paragraph, please delete the word “formal”. In the third sentence of the fourth paragraph, please change the word “site” to “installation”. In the fifth paragraph, please delete the word “conducted”.

Response: Will make these changes.

4. **Executive Summary, Page ES-2:** In the conclusions section at the bottom of the page, please delete the first bulleted item as it relates to second bulleted item, please revise the second sentence as follows: the lateral and vertical extent of contamination soils has not been fully defined.

Response: Will make these changes.

5. **Executive Summary, Page ES-3:** Please delete the recommendations section as recommendations are not to be included in the RI report.

Response: Will make this change.

6. **Section 1.0, Page 1-1:** Please change "Department of NAVFAC SE" to "Navy" in the first sentence. Please add "OU-27" before "Site 41" in the first sentence. Please add the EPA ID number after "Whiting Field" in the first sentence.

Response: Will make these changes.

7. **Section 1. One, Page 1-1:** Please delete the second sentence of this section as recommendations are not to be included in RI report. Please add were "potential" between "The" and "impact" in the third sentence.

Response: Will make these changes.

8. **Section 1.2, Page 1-1:** Please spell out the following acronyms as this is the first occurrence of the usage of this document: IR, CERCLA, SARA, NAVFAC SE, PA, SI, RI/FS and USEPA.

Response: Will make these changes.

9. **Section 1.3, Page 1-2:** In the fourth sentence of the first paragraph, please add ", separated by an industrial area," in between "(North and South fields)" and "and".

Response: Will make these changes.

10. **Section 1.4, Page 1-2:** In the ninth sentence of the first paragraph, please delete "and recommendations".

Response: Will make this change.

11. **Figure 1-2, Page 1-4:** Please provide an enlarged figure to show the site location in greater detail.

Response: An enlarged site figure has been provided.

12. **Section 3.0, Page 3-1:** Please delete "if present" in the first sentence.

Response: Will make this change.

13. **Section 3.1, Page 3-1:** Please delete “general categories of” in the first sentence of this section.

Response: *Will make this change.*

14. **Figure 3-1, Page 3-2:** Site 41 as depicted by the solid red line does not include the southern portion of the 2003 building boundary. Please revised the figures or provide an explanation in the text for why this portion of the property is not considered part of the site.

Response: *The original boundaries of AOC 1485C were shown on the map. The figure was revised by expanding the southern boundary to include all sample locations.*

15. **Section 3.1, Page 3-3:** Please describe what is meant by approximate regulatory Standard Operating Procedures as stated in the first paragraph on this page. In addition, please provide a reference to any and all standard operating procedures utilized in this investigation.

Response: *The text was revised to state that USEPA and FDEP SOPs were followed. Additional SOP references were provided where required to describe the procedures used in the investigation.*

16. **Section 3.3, Page 3-3:** The third paragraph of the section states that soil vapor headspace analyses were performed according to the method prescribed in FDEP 62-770. (2); however, 62-770 is a petroleum protocol and is not applicable to a CERCLA investigation.

Response: *In the initial stages of the investigation of AOC 1485C the character of the contamination at the Site was not known. The Work Plan directed the investigators to use FDEP UST screening protocols. The USEPA reviewed the Work Plan and approved this screening methodology.*

17. **Section 3.4, Page 3-4:** Please insert the word “Groundwater” in between the words “Basewide and “RI” in the third sentence of the third paragraph.

Response: *Will make this change.*

18. **Section 3.4, Page 3-5: A.** The first paragraph at the top of the page discusses samples which exceed FDEP criteria; however, the criteria that was exceeded is not defined. Please clarify. **B.**

In addition, the text should state whether or not EPA screening standards were exceeded for the media being sampled. **C.** Please revise the second sentence of the second paragraph as follows: "These analytes were used as indicator compounds for soil contamination at the site". **D.** The first sentence in the third paragraph refers to the evaluation of an additional area of the site; however, it is unclear which additional area is being referenced. **E.** The first sentence of the sixth paragraph on this page mentions primary screening criteria; however, it is unclear which primary screening criteria is being referenced. Please provide a reference for all screening criteria.

Response: *A. The sentence will be revised to read "...results either exceed FDEP 62-770 FAC criteria or USEPA Region 9 Superfund Preliminary Remediation Goals (PRGs) or Risk Assessment Guidance Ecological screening Values (RAGs).*

B. This sentence will be added.

C. This sentence was revised as suggested.

D. The sentence was revised to read, "...were collected on 16 October 2003 from the area around the initial site."

E. See response 18-A.

19. **Section 4.3, Page 4-2:** A more complete description of the data validation process should be provided.

Response: *A more complete description of the data validation process is now present in the report.*

20. **Section 5.0, Page 5-1:** Please delete information beginning with "The RI objectives proposed in the RI/FS Work Plan....." and ending with the second set of bulleted items on this page and replace the information with just the final standards that were used for screening purposes during the investigation.

Response: *Will make this change.*

21. **Section 5.0, Page 5-2:** Please provide a reference for the primary or secondary FDEP criteria referred to in the second sentence of the "Naturally Occurring Inorganics" section.

Response: *The reference has been added.*

22. **Section 5.1.1, Page 5-12:** Please revise the second sentence in the description of VOCs as follows: "Since acetone is considered a common laboratory contaminant, the low concentrations of acetone detected are most likely due to laboratory contamination.: In the description of SVOCs, please change the word "exceedinf" to "exceeding" in the second sentence. Samples SS41, SS44 and SS52 are mentioned in the text; however, these samples could not be found on Figure 5-1. Please verify and correct.

Response: *These corrections have been made.*

23. **Figures 5-1, 5-2, 5-3, 5-4, 5-4, and 5-6:** It would be useful to include a breakout box for each example location where a constituent was detected which shows a constituent in the detected concentration.

Response: *Breakout boxes have been added for each sample location where USEPA residential, industrial, or environmental exceedances occurred with detected concentrations.*

24. **Section 5.1.1, Page 5-14:** The sample locations for samples SS40, SS43, SS44 and SS51 which are discussed in the Pesticides/PCBs section could not be found on Figure 5-2. Please verify correct. The text states that elevated detection limits were higher than the SCTLs for certain constituents. It's unclear why detection limits that were lower than the corresponding SCTLs were not used. Please provide an explanation.

Response: *The sample locations SS40, SS43, SS44 and SS51 were added to Figure 5-2. Detection limits for aldrin and dieldrin are a function of the limits of technology. At the time the samples were taken and at this time, January 2009, the technology had not been developed to achieve detection levels lower than FDEP SCTLs for aldrin and dieldrin .*

25. **Figure 5-2:** The slanted lines shown in the figure should be defined in the legend. In addition, it is unclear why the boundary of Site 41 was not extended to include the entire area contaminated school.

Response: *The slanted lines were replaced with breakout boxes as requested in Response # 23.*

26. **Section 5.2, Page 5-19:** The first sentence of this section states that samples were collected from depths up to 10 feet below land surface (bls). An explanation should be provided as to why samples were not collected below 10 feet (bls).

Response: The Work Plan indicated that samples were to be collected to a depth of 10 feet bls during the initial screening event. Samples were not collected below this level because neither field screening or analysis of laboratory results indicated samples from greater depths would be necessary.

27. **Section 5.2.1, page 5-23:** The last sentence of the first paragraph should be revised for clarity. The first sentence in the second paragraph should be revised for clarity. In the second sentence of the second paragraph, please add “, SB45 and SB46” at the end of the sentence.

Response: The two sentences described were revised for clarity. The sample location IDs were added to the text.

28. **Section 5.3, Pages 5-43 and 5-44:** Throughout this section, the text indicates that there are numerous areas of the site that have not been adequately defined or delineated. Since the purpose of the remedial investigation is to define the nature and extent of site related contamination, an explanation should be provided as to why numerous areas of Site 41 have not been defined.

Response: For the purposes of this RI any areas where there was a fixed base laboratory detection will be considered contaminated material.

29. **Section 8.0, Page 8-1:** The first paragraph of this section states that the sections of the RI report described the nature and extent of hazardous constituents in groundwater and that risk assessment examined the risk from exposure to groundwater. However, this RI report focused on investigation of onsite soils and not groundwater. Please correct the text accordingly.

Response: The text was correct as requested.

30. **Section 8.2, Page 8-2:** Please delete this section. Recommendations for further action should not be included in remedial investigation reports.

Response: This section of text was deleted as requested.

EPA Comments through Mr. Craig Benedict from Mr. Tim Frederick concerning the Human Health Chapter to Mr. Tread Kissam NAVFAC SE.

Comment No. 1: Section 6.1.1.2.2 Insufficient information is provided in the section describing the methodology for screening detected contamination concentrations against the background. The source of the data set has not been identified in this section. The statistic used to represent the background is also not identified in this section (i.e., is the background max detect, UTL 95, UCL 95, 2x the average, other?). The background concentration used to screen the soil data is also not presented in the screening tables. Instead a simple Yes/No selection is presented in the column "Site Above Background?". In addition, the footnote in that column states, "To determine whether metal concentrations were within the background levels, soil concentrations were compared to facility background levels as described in section 6.1.1.1." However, section 6.1.1.1 discusses Data Usability and laboratory validation, not background. As presented in the text, it is not possible to evaluate the background screening data of the soil data. The text should be revised to include greater detail and background screening.

Response: *Agreed. The text on pages 6-5 and 6-6 of the current document indicates that a background screen was performed as part of the chemical of potential concern (COPC) selection process. The comparison was conducted in accordance with the EPA and Navy guidance documents listed at the bottom of page 6-5. However, the reader was not directed to any particular tables or appendices providing the **details** of the methodology for and results of the background evaluations. Please note that such details are provided in attached Appendix D.3. In overview, the background screening involved statistical background data set to site data set comparisons rather than simple site concentration-to-background benchmark comparison such as comparing maximum site to concentrations to maximum background concentrations. (According to the guidance referenced at the bottom of page 6-5, simple number-to-number comparisons "can be used with very small data sets but are highly uncertain.") The conclusions of the background evaluations (detailed in Appendix D.3) are summarized in the COPC selection tables (Tables 6-1 and 6-2). The text and COPC selection tables will be revised to include a reference to Appendix D.3.*

Comment No. 2: Section 6.3.2. This section discusses calculation of the exposure concentration to be used in the risk calculations. The text indicates that FDEPs Florida UCL Calculator Tool (Version 1.0) was used to calculate the UCL 95. EPA recommends use of the ProUCL software (Version 4.00.02) for calculating the UCL 95. It is unclear how the methods might differ in the calculations might differ in the results generated. The text should be expanded to discuss the differences in the two methods and why one was selected over the other. The text should also

discuss how the results in the calculations may have differed and the direction in bias that may result from the use of one calculator over the other.

Response: *The FDEP Florida UCL Calculator (FUCL) was used because it has been specifically requested by the State of Florida for site investigation seeking State approval/concurrence of a risk assessment. FUCL was developed with consideration of the methods and guidelines presented in the EPA's guidance document for Calculating UCLs for EPCs at Hazardous Waste Sites (December, 2002). Thus, in many respects the methodology incorporated into the software is very similar to the EPA's Pro-UCL software. The Navy's experience is that FUCL tends to not recommend the calculation of UCLs via non-parametric methods (e.g., boot strap methods) and FUCL pays particular attention to the handling censored results (i.e., non-detect results). Also, the Navy's experience using FUCL versus Pro-UCL is that, generally, EPCs developed using FUCL tend to be more conservative than (i.e., higher than) EPCs developed using Pro-UCL. This discussion will be added to Section 6.3.2.*

Comment No. 3: Section 6.4.1. The text identifies sources for toxicity criteria to be used in risk assessment calculations from "the following primary recommended EPA sources...." The bullet list identifies Tables 5A and 5B from FDEP 62-777 as one of the primary recommended USEPA sources. OSWER Directive 9285.7-53 (USEPA, 2003) identifies a three tiered approach for the selection of toxicity criteria. The Florida tables would fall under Tier 3 and are not specifically cited as this bullet list suggest. For clarity, the list should be revised.

Response: *Agreed. The wording in Section 6.4.1 will be adjusted as requested. The referenced toxicity criteria in the Florida tables (Tables 5a and 5b) will be listed under the "Other Toxicity Values" bullet and the text will note that such criteria are not specifically recommended or endorsed by the U.S. EPA.*

Comment No. 4: Section 8.0. The text states, "The preceding sections of the RI Report have described the nature and extent of hazardous constituents in groundwater..." However, no groundwater samples appear to have been collected as part of its investigation. The text should be corrected accordingly.

Response: *Agreed. The text will be corrected as suggested.*

EPA Comments through Mr. Craig Benedict from Mr. Brett Thomas concerning the Ecological Risk Chapter to Mr. Tread Kissam NAVFAC SE.

Per your request, I have reviewed the Remedial Investigation for Site 41, Former Pesticide Storage Building 1485C, at the Naval Air Station Whiting Field in Milton, Florida. The focus of my

review was the adequacy of the ecological risk assessment for Site 41. I did identify a few exposure factors and assumptions that I do not agree with, however the overall assessment appears to be sound enough to support the conclusion of no unacceptable ecological risk Site 41. These conclusions are based upon my best review efforts in a reasonable time frame, having never visited the site. If more or clarifying information becomes available, these conclusions could change.

Response: As pointed out by Mr. Thomas, modification of the document based on the comments would not alter the outcome of the ecological risk assessment. For this reason Mr. Thomas's detailed comments are included following this section but no modifications were made to the ecological risk assessment.