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NAS WHITING FIELD
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LETTER REGARDING U S NAVY RESPONSE TO FLORIDA DEPARTMENT OF
ENVIRONMENTAL PROTECTION AND U S EPA REGION IV COMMENTS SITES 5A, 7, 29,
35, 38, POTENTIAL SOURCE OF CONTAMINATION 1485C DRAFT ASSESSMENT REPORT
NAS WHITING FIELD FL
11/25/2002
TETRA TECH NUS



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TtNUS/TAL-02-074/0052-3.2

November 25, 2002

Project Number N0052

Mr. Craig Benedikt
U.S. Environmental Protection Agency
Region IV
Federal Facilities Branch
61 Forsyth St. SW
Atlanta, GA 30303

Reference: CLEAN Contract No. N63467-94-D-0888
Contract Task Order Number 0079

Subject: Response to FDEP and USEPA Comments
On Draft Assessment report for Sites 05A,
07, 29, 35, 38, and PSC1485C

Dear Mr. Benedikt:

Attached please find the response to comments for the above subject document. This response has been prepared for the U.S. Navy Southern Division naval Facilities Engineering Command (SOUTHNAVFACENGCOM) under Contract Task Order (CTO) 0079, for the Comprehensive Long-term Environmental Action Navy (CLEAN) Contract Number N62467-94-D-0888.

If you have any questions concerning the information presented, please contact me at (850) 385-9899.

Sincerely,

Terry J. Hansen
Task Order manager

TH/ds

Attachments

c: Linda Martin, SOUTHDIV
Jim Cason, FDEP
Amy Twitty, CH2M Hill
Jim Holland, NAS Whiting Field
Phillip Ottinger, TtNUS
TtNUS file



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November 25, 2002

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Mr. Jim Cason
Florida Department of Environmental Protection
Twin Towers Office Building
2600 Blairstone Road
Tallahassee, FL 32399

Reference: CLEAN Contract No. N63467-94-D-0888
Contract Task Order Number 0079

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Dear Mr. Cason:

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c: Linda Martin, SOUTH DIV
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**RESPONSE TO FDEP AND USEPA COMMENTS
ON DRAFT ASSESSMENT REPORT FOR
SITES 05A, 07, 29, 35, 38, AND PSC1485C**

GENERAL NOTE:

At the November 19-20, 2002 NAS Whiting Field Partnering Team meeting it was decided to re-label this report as a Remedial Investigation Report for Sites 05A, 07, 29, 35, 38, and PSC1485C. The comments received from the FDEP were made on a Preliminary Assessment/Site Investigation report prior to this decision. The comments will be addressed with regards to a Remedial Investigation, as opposed to a Preliminary Assessment / Site Investigation.

RESPONSE TO FDEP COMMENTS:

Site 05A - The Battery Acid Seepage Pit

Comment 1 *Given that the surface soil contains Vanadium in excess of the existing Florida DE1 target levels, how will the Navy address this situation if the proposed SCTLs for Vanadium are not changed?*

Response

The reference in the report to the proposed changes to the FDEP DE1 SCTL for vanadium was premature. All references to this proposed SCTL will be revised to reflect the current FDEP DE1 SCTL for vanadium. However, during the Human-Health Risk Assessment (HHRA), vanadium was selected as a chemical of potential concern (COPC) because the maximum detected concentration in soils exceeded the current residential Florida SCTL for surface soils. The current residential FL SCTL is based on acute toxicity and assumes ingestion of 10 grams of soil in a single event by a residential child who exhibits pica behavior, a rare behavior pattern. In a reasonable maximum exposure (RME) scenario it is not necessary to consider pica exposure in order to be protective of the majority of exposed children. Based on this information, the HHRA recommended no further action (NFA) based on vanadium because a moderate estimate of chronic soil ingestion rates would not yield a Hazard Quotient (HQ) above 1 for a residential child. The HHRA for vanadium is presented in detail in Section 2.3.2.1.4.2 of the Report.

There is a good deal of uncertainty added to the risk by the use of acute exposure scenario and it is likely any risk calculated using the residential FL SCTL would be overestimated for most residential situations. The uncertainty associated with the vanadium residential FL SCTL is explained in detail in Section 2.3.2.1.5.4 of the Report.

Comment 2 *In Section 2.2.2 the statement is made that subsurface soil samples were not obtained because OVA readings were below 50 ppm and no visual signs of contamination were noted. Given that the OVA is used for helping assess volatile and semivolatile compounds and the visual staining is a guide for used oil, please justify why samples for pesticides and PCBs were not obtained.*

Response

The statement is misleading and will be revised to state:

Surface soil samples for pesticide / PCB analysis were collected from 0-1 foot below land surface (bls) and the results reviewed to determine if impact on the subsurface soil was likely. The surface soil contained no pesticide or PCBs above FDEP DE1 and DE2 SCTLs. The leachate analysis on the surface soil samples verified the levels of pesticides and PCBs detected in the surface soil would not leach to the subsurface soil. This is further supported by the inherent characteristic of PCBs to be insoluble in water.

Additionally, pesticides and PCBs were detected at a geologically similar site, Site 6; however, pesticides and PCBs were not detected in the subsurface soil. This again supports the conclusion that pesticides and PCBs would not be expected to be in the subsurface soil at Site 5A.

Comment 3 *In the Conclusions section (page 2-21), I cannot agree that the presence of PCBs are due to the application of pesticides unless some evidence in that regard is presented.*

Response

The statement will be revised to state:

The pesticides detected were compared to analytical data from several sites (3, 6, 30, and 33) to determine if the pesticide levels detected in the surface soil were similar to the levels detected in the surface soil at Site 05A. The detected pesticide levels are similar to the other sites (Remedial Investigation Report for Surface and Subsurface Soil Sites 3,4,6,30,32, and 33, TtNUS, September 1999). Therefore, it is likely that the pesticides detected at Site 05A are from the general application, not from mishandling or spillage of pesticides. Additionally no history of pesticide storage exists for Site 05A.

Comment 4 *Site assessments normally have sampling for all media. Please justify why groundwater sampling was not accomplished at this site.*

Response

The Work Plan states in section 3.2.3.3 (page 3-37), "The investigation of groundwater at the site, will be addressed in the facility-wide groundwater investigation..." therefore; the groundwater at this site was not addressed because Site 40 (basewide groundwater) was not addressed in this report. The Site 40 investigation findings will be presented in the Site 40 RI Report.

Comment 5 *Until such time as the Florida soil DE1 values are changed, the recommendation of NFA for this site is premature.*

Response

Vanadium was detected above the Florida soil DE1 values. However, the HHRA conducted for surface soil contamination recommended an NFA based on vanadium concentrations. Please refer to the response to Comment 1 for an explanation of the recommendation.

Site 7 – The South Avgas Tank Sludge Disposal Area

Comment 1 *Please prepare a summary table that lists the DE1, DE2, and LE exceedances for the site soils.*

Response

This information is included in Tables 3-1 through 3-5.

Comment 2 *You may want to delete the various recommendations since this is not the most appropriate document for such a presentation (a Proposed Plan is the appropriate place for recommendations).*

Response

The recommendations will be revised to state a focused Feasibility Study should be performed. Please refer to the response to USEPA General Comment #6 for an in depth explanation.

Site 29 – Auto Hobby Shop

Comment 1 *This supplemental investigation was conducted to determine any soil contamination that might remain after UST removal. Please justify why the sampling properly addressed the possible contamination, bearing in mind that the sampling occurred in the 0-1 foot bls interval for surface soil (which is in all probability, clean backfill placed after UST removal.) Additionally, please justify why the subsurface soil was not sampled based on only OVA screening which only occurred in the soil interval below 9 feet bls. What about the interval from 1 to 9 feet bls.*

Response

Surface soil samples were collected to confirm no contamination was present due to spillage around the tank. Figure 4-1 in the report shows surface soil sample locations in both the tank area and the surrounding area, with only one surface soil sample being collected from the tank removal area. All other surface soil samples were collected from the surrounding area, outside of the tank removal area.

During tank removal visible contamination was removed to a depth of approximately 7 feet bls. TtNUS advanced soil borings to confirm the subsurface soil at a depth of 7-10 feet bls was not adversely impacted by the tank. Confirmation was conducted using visual inspection and Organic Vapor Analysis (OVA) at the 9-10 foot interval. This interval is most likely the area of impact from any tank leaks. Samples were not submitted for fixed-based laboratory analysis since there were no visual signs of staining and all OVA readings were "0 ppm".

Comment 2 *Site assessments normally have sampling for all media. Please justify why groundwater sampling was not accomplished at this site.*

Response

Please refer to the response to Comment 4 for Site 05A

Comment 3 *Comment 1 for Site 5A also applies for this site.*

Response

Please refer to the response to Comment 1 for Site 05A.

Site 35 – Building 1429: Public Works Maintenance Facility

Comment 1 *Semivolatile and inorganic soil contamination was confirmed in four of thirteen soil samples. Prior to final decisions being made on this site, the extent of that contamination must be delineated. Note that no sampling occurred in the soil interval directly below the concrete and that while that concrete remains, the soil*

may be considered to be under an engineered cover. The semivolatile contamination was found in a sampling interval that was at 18 to 20 feet bls (soil boring SB12). There were no soil samples obtained in the soil interval down to 13 feet bls.

Response

Subsurface soil samples were collected at the 5–7 foot bls interval from soil borings SB10 and 13 for OVA. The soil from the 5–7 foot bls interval from SB12 was too loose to collect a sample using Direct Push Technology (DPT). The OVA conducted on the soil from SB10 and 13 indicated no organics were present. Therefore, no sample from this interval was submitted to a fixed-base laboratory.

Please refer to the response to comment No. 3 with regards to further delineation.

Comment 2 *Site assessments normally include sampling for all media. Please justify why groundwater sampling was not accomplished at this site.*

Response

The Work Plan states in section 3.2.4.2 (page 3-40), "The investigation of groundwater at the site, will be addressed in the facility-wide groundwater investigation..." therefore; the groundwater at this site was not addressed because Site 40 was not addressed in this report. The Site 40 (basewide groundwater) investigation findings will be presented in the Site 40 RI Report.

Comment 3 *I suggest that the recommendation be changed to reflect the need for additional soil contaminant delineation and groundwater assessment.*

Response

The recommendation will be revised to state a focused Feasibility Study should be conducted. Please refer to the response to USEPA General Comment #6 for a more in depth response.

Please refer to the response to Comment 2 with regards to the groundwater assessment.

Site 38 – Building 2877, Former Golf Course Maintenance Building

Comment 1 *Similar problems exist with this site as with the other sites in this document with regard to the assessment of surface and subsurface soils. There is an interval (1-8 feet bls) that has not been assessed. The Navy should formulate a supplemental sampling program to address this data gap.*

Response

Based on interviews with base personnel and a subsequent geophysical survey the foundation of the building is believed to be present at approximately 8 feet bls. The material in this area from 1-8 feet bls has reportedly been placed on the foundation and is not representative of general site conditions. Therefore, no sampling was conducted in this area.

Surrounding the former building site, additional fill was also placed, believed to be up to 8 feet in thickness. Therefore, the first subsurface samples for lab analysis were collected at 9 feet bls. The geophysical data needs to be included into this report. The foundation of the building is likely present, therefore; the 1-8 feet interval cannot be investigated. Base maintenance workers reported that the soil berm currently located at the site is the result of dumping material on the concrete slab of the previously existing Building.

Comment 2 *In the section on Inorganics (page 6-23), the statement is made that "FDEP has agreed that arsenic is naturally occurring at this site." This is not exactly correct. In my letter of April 11, 2001, I stated, "Please be aware that this finding does not preclude a future determination of a release of arsenic at any particular site if information and data warrant that conclusion." Since this is a site on the golf course and arsenic is a material that is commonly applied at golf courses, we should consider this at an upcoming Partnering meeting before we can decide on the possible naturally-occurring nature of arsenic at this site.*

Response

With the exception of surface soil borings SS11 and SS12, all other detected levels of arsenic were similar to the detected levels of arsenic at the other five sites discussed in this report. Therefore, with the exception of SS11 and SS12, the levels of arsenic detected at the Site is most likely due to naturally occurring levels of arsenic. An interim removal action in the area of SS11 and SS12 is being conducted. This removal should result in the removal of the unusually high levels of arsenic contamination. However, the Whiting Field Partnering Team should review this issue to develop a consensus. The interim removal action will be included as an addendum to the Report.

Comment 3 *Site assessments normally include sampling for all media. Please justify why groundwater sampling was not accomplished at this site.*

Response

Please refer to the response to Comment 4 for Site 05A.

Comment 4 *The results of this assessment indicate that an undetermined amount of contamination exists at the site. I suggest that an RI, including groundwater assessment, be completed for this site.*

Response

Once the interim removal is conducted, the localized contamination should be removed. The removal and analytical data from the removal will be added to this report as an addendum. Additionally, an SERA and HHRA will be performed for the Site and included in the addendum. Please refer to the response to USEPA General Comment 6 with regards to conducting an RI.

Refer to the response to Comment 4 for Site 05A for an explanation of the groundwater assessment.

Site 1485C – Pesticide Storage Building

Comment 1 *Soil contamination was confirmed at the site. Additional sampling for delineation is needed, including in the unsampled vertical intervals as I have previously discussed.*

Response

The recommendation for this site will be revised to state a Focused Feasibility Study should be performed. Please refer to the response to USEPA General Comment #6 for a more in depth response.

Comment 2 *Site assessments normally have sampling for all media. Please justify why groundwater sampling was not accomplished at this site.*

Response

Please refer to the response to Comment 4 for Site 05A.

Comment 3 *Based on the confirmation of soil contamination and the absence of groundwater assessment at this site, I suggest that an RI be completed at this site.*

Response

Please refer to the response to Comment 4 for Site 05A, with regards to the groundwater assessment, and the response to USEPA General Comment #6 with regards to conducting an RI.

RESPONSE TO USEPA COMMENTS:

General Comments:

Comment 1 *The document refers to proposed FDEP standards, which may or may not change in the future, in discussions of COPCs. COPC evaluations should be based on standards currently in place and should not be based on speculation of what standards may be in the future.*

Response

Refer to the response to FDEP Comment 1 for Site 5A, The Battery Acid Seepage Pit.

Comment 2 *Please provide the relevant risk assessment (human health and ecological) documentation as appendices to the document.*

Response

All relevant risk assessment documentation will be included as appendices to the document.

Comment 3 *In a number of locations throughout the document, the statement is made that regulatory limits are too conservative. These statements merit additional explanation or should be removed from the document.*

Response

With regards to the HHRA, refer to the response to FDEP Comment 1 for Site 5A, The Battery Acid Seepage Pit. Reasoning for using alternative limits for the ERA is contained in Appendix A of the Report.

Comment 4 *The definition for each acronym should be included in the text at the location the acronym is first used throughout the document.*

Response

The acronym of each text will be included in the text at the location the acronym is first used.

Comment 5 *Throughout the document, the text states that FDEP has agreed that arsenic is naturally occurring at NAS Whiting Field. The text should instead state that upon closer examination of all the data collected at NAS Whiting, arsenic has been*

determined to be a naturally occurring constituent in the soil as NAS Whiting Field.

Response

All text referring to the natural occurrence of arsenic at NAS Whiting Field will be revised to state that upon closer examination of all the data collected at NAS Whiting, arsenic has been determined to be a naturally occurring constituent in the soil as NAS Whiting Field.

Comment 6 *Based on the high level of effort expended in conducting the assessments contained in this document, the Navy should consider revising and relabeling the document as a remedial investigation (RI) report for the subject sites, especially for those sites which require additional action. Most general assessments do not include human health and ecological risk assessments as this report does. The information in a RI report, the Navy could streamline the process by then conducting a focused feasibility study rather than having to go back and conduct a RI. This approach would reduce the overall cost to the Navy and allow remedial action to be conducted at the sites at an accelerated pace. For those sites where a simple removal action can mitigate the risk, the removal action should take place, followed by a no further action designation in the site management plan. No record of decision would be prepared for these sites.*

Response

The report will be relabeled as a remedial investigation and include all the sites, since a risk assessment (human health and ecological) was performed for each site. Any recommendations suggesting further investigation be conducted will be revised to recommend a focused Feasibility Study be conducted.

Specific Comments:

Comment 1 *Page Iii, Table of Contents. The "Professional Review Certification" and the "Acronyms" listed as Sections 8 and 10, respectively, should be moved to the front of the document instead of occurring at the end of the document.*

Response

The "Professional Review Certification" and "Acronyms" sections will be moved to the front of the Report.

Comment 2 *Page F-1, Foreword. Remove the words "The" and "acts" in the last sentence of the second paragraph. In the last sentence on this page, change "Mr." to "Ms."*

Response

These changes will be made, and included in the Final Report.

Comment 3 *Page ES-1, Executive Summary. The first and second sentences of the third paragraph should be reworded for clarity.*

Response

The first and second sentences of the third paragraph will be reworded as follows:

Site 05 was previously investigated and closed, however; Site 05 was not investigated for possible pesticide/PCB contamination. Therefore, the pesticide/PCB contamination investigation at Site 05 was conducted as Site 5A. Four (4) surface soil borings and four (4) subsurface soil borings were advanced using DPT at Site 5A

Comment 4 Page ES-2, Executive Summary. *In the first paragraph on this page and elsewhere in the document, "Region IX RAGs" should be changed to "Region IV RAGs". In the second paragraph and elsewhere in the document, "USEPA Region IV PRGR" should be changed to "USEPA Region IX PRGs".*

Response

References to "Region IX RAGs" and "USEPA Region IV PRGR" will be changed to read "Region IV RAGs" and "USEPA Region IX PRGR."

Comment 5 Figure 1-2, Site 5 Map. *This figure identifies the buildings as Bldg. 1454; however, the text identifies the building as 1478. Please revise as necessary.*

Response

The text is correct, therefore, Figure 1-2 will be revised to reflect the correct building number Bldg. 1478).

Comment 6 Figure 1-5, Site 35 Map. *The figure identifies the building as Bldg. 1129; however, the text identifies the building as Bldg. 1429. Please revise as necessary.*

Response

The text is correct, therefore, Figure 1-5 will be revised to reflect the correct building number (Bldg. 1429).

Comment 7 Page 1-14, Section 1.2.3.1. *The first sentence of the first paragraph should be revised as follows: "During an April 1999 meeting between the Navy, EPA, and FDEP, discussions concerning the Site 6 RI led to the question as to whether the Detection and Monitoring Program at Site 5 had included sampling for PCBs..."*

Response

The sentence will be revised to reflect the wording in this comment.

Comment 8 Page 1-15, Section 1.2.3.3. *The first sentence of the first paragraph should be reworded for clarity.*

Response

The first sentence will be reworded as follows:

"Site 29 was added to the RI/FS investigation at NAS Whiting Field between 1992 and 1993 because of the presence of a waste oil UST. The UST stored point oil and solvents from the 1940's until 1990."

Comment 9 Page 1-16, Section 1.2.3.3. *The last sentence of this section is incomplete. Please revise.*

Response

The third paragraph on page 1-16 will be removed as this refers to work that was conducted in support of this report, and not to previous investigations.

Comment 10 Page 1-17, Section 1.3. *The second sentence of this section should be revised for clarity. The same text is also used in the first paragraph of Section 1.3.2 and should also be revised.*

Response

The sentence will be reworded as follows:

“Analysis of the previous investigation data suggested additional data was needed to more accurately define the concentrations of contaminants in the soil. Previous investigations did not fully delineate concentrations of contaminants in the soil with regards to regulatory-defined or risk-based soil cleanup target levels. The additional data will also improve the certainty of data interpretation when used in the Feasibility Study (FS) engineering analysis and design.”

Comment 11 Page 3-19, Section 3.3.1. *In the first three paragraphs of this page, change the term “interfering analyte: to “a known interfering analyte, iron...”*

Response

The term “interfering analyte” will be changed to “a known interfering analyte, iron...”.

Comment 12 Page 3-37, Section 3.4.1. *In the last sentence of the first paragraph, a reference should be provided for the “newly proposed SCTL” statement or the statement should be removed. See General Comment No. 1 above.*

Response

This statement was premature, and will be removed.

Comment 13 Page 4-8, Section 4.3.1. *No CD was provided. The fourth sentence of the second paragraph should be revised as follows: “Nondetects were rejected because the instrument used for the analysis was not detecting low-level acetone sufficiently.”*

Response

The CD will be provided with the final report. The fourth sentence of the second paragraph will be revised as stated in this comment.

Comment 14 Page 4-11, Section 4.3.2.1.2. *In the second sentence at the top of the page, change the word “in” to “for”.*

Response

This change will be made, and included in the Final Report.