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NAS WHITING FIELD
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LETTER AND U S EPA REGION IV COMMENTS TO TECHNICAL MEMORANDA NUMBERS
5, 6 AND 7 REGARDING REMEDIAL INVESTIGATION/FEASIBILITY STUDY PHASE IIA NAS
WHITING FIELD FL
9/27/1995
U S EPA REGION IV



UNITED STATES ENVIRONMENTAL PROTECTION

REGION 4

345 COURTLAND STREET, N.E.
ATLANTA, GEORGIA 30365

ESEP 27 1995

4WD-FFB

Mr. Jeff Adams
Southern Division
Naval Facilities Engineering Command
Code 18510
P.O. Box 190010
North Charleston, SC 29419-9010

SUBJ: NAS Whiting Field RI/FS Phase IIA
Technical Memoranda Nos. 5, 6, and 7

Dear Mr. Adams:

The United States Environmental Protection Agency (EPA) has reviewed the Technical Memoranda Nos. 5, 6, and 7 as they relate to the ongoing Remedial Investigation/Feasibility Study (RI/FS) being conducted at NAS Whiting Field in Milton, Florida.

Enclosed please find EPA's comments based on the review. The memoranda were reviewed for technical content, data gaps, validity, accuracy, completeness and logical interpretation of the data.

If you should have any questions, please feel free to contact me at (404) 347-3555, ext. 6456.

Sincerely yours,

A handwritten signature in cursive script that reads "Craig A. Benedikt".

Craig A. Benedikt
Remedial Project Manager
Federal Facilities Branch

Enclosure

cc: Jim Cason, FDEP
Terry Hansen, ABB

EPA COMMENTS FOR
NAS WHITING FIELD
TECHNICAL MEMORANDA NOS. 5, 6, AND 7

TECHNICAL MEMORANDUM NO. 5 - GROUNDWATER ASSESSMENT

General Comments:

1. The text states that the monitoring wells installed were constructed of polyvinyl chloride (PVC). However, the EPA, Region IV, Environmental Compliance Branch Standard Operating Procedures and Quality Assurance Manual, February 1, 1991 (ECBSOPQAM) discourages the use of PVC as a well construction material. The ECBSOPQAM states in Appendix E, Section E.5, that "when selecting the materials for construction, the prime concern shall be to select materials that will not contribute foreign constituents, either by leaching or sorption, into the monitoring zone and compromising the integrity of the well and future analytical data. If the analytical program is designed to analyze for organic compounds, stainless steel shall be used, where applicable. If the monitoring program calls for the analyses of inorganic compounds only, then PVC materials may be acceptable." Therefore, stainless steel, and not PVC, should be specified as the material of construction for casings and screens. If PVC is selected for the RI/FS, site-specific analytical data should be provided indicating that neither the leaching nor the sorption of organic compounds from the PVC well materials will interfere with the data quality of the groundwater samples collected.
2. Figures contained in the Draft Technical Memorandum do not contain all of the features stated in the text, and the overlap of symbols makes it difficult to locate investigative features. In addition, the boundaries for each site are not clearly defined in each figure. These discrepancies must be corrected.
3. The text states that the facility-wide background monitoring wells consist of shallow monitoring wells that are screened across the water table in the sand and gravel aquifer. Further, the text states that the analytical data for groundwater samples that were collected from downgradient wells that are screened in the intermediate and deep portions of the sand and gravel aquifer were compared to the groundwater samples collected from the background wells screened in the shallow portion of the sand and gravel aquifer. Downgradient groundwater samples should only be compared to background groundwater samples which were collected from similar depths in the aquifer. Since, no intermediate or deep background monitoring wells have been installed in the sand and gravel aquifer at the facility,

additional monitoring wells should be installed as background wells in the intermediate and deep portions of the sand and gravel aquifer.

4. ABB generated a tremendous amount of data in support of the facility-wide groundwater assessment project; however, the summary portions of the Draft Technical Memorandum do not include information from all investigative activities. This deficiency must be addressed. In addition, conclusions based upon the logical interpretation of data should be provided.
5. Section 5.0, Summary and Conclusions, provides an abbreviated site-by-site summary of findings. This section should provide a narrative description of how the data impacts future RI activities and site prioritization. Presentation of this information is important to augment the understanding of groundwater contaminant levels at the different sites across the facility and to focus any additional groundwater investigative efforts where needed most.
6. Throughout the report, whenever 1,2-dichloroethene is reported, the suffix used to denote which isomer was detected is not included. Since 1,2-dichloroethene can exist as both a cis- and a trans- isomer, both of which have different MCLs, it is important to indicate which isomer was detected.

Specific Comments:

1. Executive Summary, Page iii, Paragraph 3:
The Executive Summary and the Introduction of the Draft Technical Memorandum states, "The purpose of the RI soil assessment is to characterize site-specific and facility-wide soil contamination at NAS Whiting Field." In addition the text states, "Data obtained from this assessment will be used to evaluate the nature and extent of soil contamination." These statements appear to contradict the remainder of the Draft Technical Memorandum. The Draft Technical Memorandum summarizes the results of the data gathered for the facility-wide groundwater assessment, not an RI soil assessment. Therefore these sections of the Draft Technical Memorandum should be revised to clarify the discrepancy.
2. Page 1-20, Paragraph 5:
Please provide the appropriate EPA Data Quality Objective (DQO) level as it relates to the stated NEESA level.
3. Section 2.1, Page 2-4, Paragraph 3:
Please provide the appropriate EPA Data Quality Objective (DQO) level as it relates to the stated NEESA level.
4. Section 2.3, Page 2-16, Paragraph 3:
The text states that Figure 2-1 presents the locations of background monitoring wells WHF-BKG-1, WHF-BKG-2 and WHF-BKG-3. However, Figure 2-1 does not present background monitoring well locations. In addition, the text indicates that all three monitoring wells are located hydraulically upgradient from all of the sites indicated in Figure 3-5. However, in the "List of Figures" found within the text Figure 3-5 is not listed, nor is the figure included in the Draft Technical Memorandum. These discrepancies should be corrected.
5. Section 2.3, Page 2-17, Paragraph 1:
It should be stated that each well was sampled with a dedicated bailer or that the bailer was decontaminated between the collection of well samples.
6. Section 3.1.1, Page 3-1, Paragraph 2:
The text states that all samples were properly preserved, placed in coolers packed with bagged ice immediately after their collection and shipped to the laboratory. However, the text should provide the specific sample preservation techniques.
7. Page 3-18, Laboratory Method Blanks Section:
Bis(2-ethylhexyl) phthalate is listed twice in the paragraph. Please correct.

8. Section 4.3.3, Page 4-24, Paragraph 2:
The text states that through the UST program, 41 shallow and intermediate depth monitoring wells were installed at Site 4; however, only the sampling of 18 wells is mentioned in the text. Provide additional information into the status of the remaining 23 wells.
9. Page 4-28, Paragraphs 3 and 5:
The MCL for toluene as stated in the text is incorrect. The correct MCL for toluene is 1,000 ug/l, not 10,000 ug/l.
10. Page 4-33, Analyte/MCL Table:
This table needs to clarify which MCL is a State MCL and which is a federal. In addition, primary and secondary MCLs are intermixed throughout the table. A distinction needs to be made as to which MCLs are considered primary and which are considered to be secondary; that is which MCLs are promulgated standards and which are based on the aesthetic qualities of drinking water. The value given for lead in the table is an action level and should be indicated in the table as such. Since this table or similar tables appear throughout this document, the same distinctions or clarifications will need to be made to those tables as well.
11. Page 4-36, Paragraph 3:
The values provided in the first sentence for aluminum and iron are not MCLs but rather SMCLs. Copper does not have a MCL of 100 ug/l but rather has an assigned MCLG of 1,300 ug/l. The value provided in the last sentence of the paragraph for manganese is not a MCL but rather a SMCL.
12. Page 4-46, Paragraphs 1 and 3:
See comment No. 11 above as it pertains to the MCLs, MCLGs, and/or SMCLs for aluminum and iron.
13. Page 4-47, Paragraph 6, Sentence 4:
Provide the State MCL value for bis(2-ethylhexyl)phthalate.
14. Page 4-62, Paragraph 1:
See Comment No. 11.
15. Page 4-73, Paragraph 6:
See Comment No. 11. In addition, if the MCL value of 50 ug/l for chromium is a State MCL, it should be stated as such.
16. Page 4-89, Last Paragraph:
VOCs should be SVOCs.
17. Page 4-97, Paragraph 5:
Calcium should be changed to cadmium in the last sentence of the paragraph. There is no MCL for calcium.

18. Section 5.1, Page 5-1, Paragraph 2:
A rationale should be provided as to why it is believed that acetone, methylene chloride, and carbon disulfide are sampling artifacts.

19. Page 5-12, Third Bullet:
Change the comma between 11 and 29 to a decimal point.

TECHNICAL MEMORANDUM NO. 6 - DEFINITION OF OPERABLE UNITS

1. Change RA/RD throughout the document to RD/RA.
2. Since it was decided in a previous meeting to retain the original numbering scheme for the sites, the site numbers in Table 1-1 should be revised to reflect the original site numbers. In addition, wherever the new numbering scheme was utilized in the document, the site numbers should be returned to the original numbers.
3. Page 1-16, Paragraph 1:
The text states that a decision by FDEP, USEPA, and the Navy to return Sites 4 and 7 to the IR program is pending; however, in a meeting between all three parties, it was decided to address these sites in the IR program.
4. Page 2-6, Paragraph 1:
Although Sites 1, 2, 17 and 18 are all in close geographic proximity to each other, Sites 1 and 2 were utilized as landfills and Sites 17 and 18 were utilized for fire training activities. As such, the remedies selected for these two classes of sites are likely to be different. Therefore, it is recommended that Sites 1 and 2 constitute one operable unit (OU) and Sites 17 and 18 constitute a separate OU. In addition, the text states that Sites 1 and 2 are good candidates for a NFA decision. This language needs to be removed from the text. This decision has not been reached yet.

TECHNICAL MEMORANDUM No. 7 - PHASE IIB WORKPLAN

General Comments

The Phase IIB Work Plan is a well-written and thorough report which adequately presents the technical approach for conducting the RI/FS at OUs 1 through 6 at NAS Whiting Field. The Phase IIB Work Plan discusses site history and background, summarizes regional environmental setting, describes OUs, details field investigative methods, summarizes previous investigations, identifies site media requiring further investigation and details proposed field activities.

Throughout the Phase IIB Work Plan, the text describes proposed monitoring well installations. Shallow, intermediate and deep monitoring wells are proposed for installation in the surficial aquifer system, also known as the sand and gravel aquifer. The text provides completed depths of the shallow, intermediate and deep wells, but not the screened intervals. This data is required in order to evaluate whether the appropriate zone within the aquifer will be monitored. For example, an upgradient shallow monitoring well at Site 15 is to be installed to a depth of 110 feet below land surface (bls), and the text states that the well will be installed to "intercept the piezometric water level." The piezometric water level is approximately 55 feet bls; therefore, given the total well depth of 110 feet, it appears that the screened interval is 55 feet in length. This seems illogical and if approved, would monitor groundwater from too large a zone in the upper surficial aquifer. The screened interval, then, is important for evaluating if the shallow, intermediate and deep portions of the surficial aquifer are being adequately characterized. For this reason, provide screened intervals for all monitoring wells installed at NAS Whiting Field.

Specific Comments

The specific comments are listed on the following pages in the order of their occurrence in the Phase IIB Work Plan. The comments are organized by page number, section number and paragraph number, as appropriate.

1. Page 4-3, Section 4.3, Paragraph 3:
The text states that if groundwater turbidity is not reduced below 5 NTUs, then filtered groundwater samples will be collected. According to the EPA, Region IV, Environmental Services Division, Environmental Compliance Branch Standard Operating Procedures and Quality Assurance Manual, February 1, 1991, (ECBSOPQAM), as a standard policy, groundwater samples will not be filtered. If turbidity is expected to

be a concern in the course of collecting groundwater samples, then the use of quiescent sampling techniques should be considered in lieu of filtering. Filtering is also referred to elsewhere in the report. Quiescent sampling techniques should also be utilized at each and every site where turbidity is a concern.

2. Page 5-11, Paragraph 1:
The text states that the Phase IIA Technical Memorandum No. 3 is still draft when in fact it has been finalized. Please revise the text in this instance and elsewhere in the report where Technical Memorandum No. 3 is referred to as draft.
3. Page 5-14, Paragraph 4:
The last sentence of this paragraph refers to a beam being used as an engineering control. I believe the author meant to use the word berm instead. Please review and correct, if necessary.
4. Page 5-24, Section 5.4.3.1, Paragraph 4:
The text attempts to discuss the three previous investigations (verification study, RI Phase I and RI Phase IIA) conducted at Site 11; however, page 5-25 is missing from the Phase IIB Work Plan. As a result, the summaries and conclusions for both the RI Phase I and RI Phase IIA cannot be evaluated. Please provide this information.
5. Page 7-19, Section 7.3.1, Paragraph 2:
The text states that "three of four surface soil samples will be analyzed to determine physical characteristics." However, on page 7-17, the text indicates that seven surface soil samples will be collected at Site 9. Please clarify this discrepancy.
6. Page 7-27, Section 7.3.5, Paragraph 5:
The text states that "three of eight surface soil samples will be analyzed to determine physical characteristics." However, paragraph 3 indicates that only five surface soil samples will be collected at Site 13. Please clarify this discrepancy.
7. Page 7-29, Section 7.3.6, Paragraph 5:
The text states that "three of eight surface soil samples will be analyzed to determine physical characteristics." However, paragraph 4 indicates that only three surface soil samples will be collected at Site 14. Please clarify this discrepancy.
8. Page 7-30, Section 7.4.1, Paragraph 6:
The text states that "surface soil sampling will consist of collecting 36 samples (28 grab samples and 8 composite samples) for laboratory analyses." Compositing of samples to reduce the number of sample stations may produce inadequate data with which to characterize potential sources

of contamination. The ECBSOPQAM states in Section 4.11.3.3 that "although modern analytical detection limits allow for qualitative screening, the risk still remains that when using compositing techniques, low concentrations present in individual composite aliquots may be diluted to the extent that the total composite concentration is below the minimum quantitation limit. It may also be difficult to produce a homogenous mixture, and the resulting sample may not be representative, either qualitatively or quantitatively, of an average of the samples." The collection of composite samples is therefore discouraged.

9. Page 7-31, Paragraph 2:

The text states that four soil borings will be completed at Site 21C; however, Figure 7-11 only depicts the location of three soil borings at Site 21C.