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NAS CECIL FIELD, FL  
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LETTER REGARDING U S EPA REGION IV COMMENTS ON DRAFT REMEDIAL  
INVESTIGATION REPORT FOR OPERABLE UNIT 9 (OU 9) SITE 57 AND SITE 58 NAS  
CECIL FIELD FL  
4/24/2002  
U S EPA REGION IV



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 4  
61 Forsyth Street, SW  
Atlanta, Georgia 30303

April 24, 2002

4WD/FFB

Commander Department of the Navy  
SOUTHNAVFACENGCOM  
Attn: Mark Davidson  
Mail Code ES339  
P.O. Box 190010  
North Charleston, South Carolina 29419-9010

Subject: Draft Remedial Investigation Report (March 2002)  
Operable Unit 9, Sites 57 and 58  
Naval Air Station Cecil Field, Jacksonville, Florida

Dear Mr. Davidson:

The U.S. Environmental Protection Agency (EPA) has reviewed the subject document, and from an overall technical viewpoint, the document was well written. Our comments follow.

1. This report does not present the results of any soil sampling for the Site 57 and Site 58 areas. Since the soil medium is both a potential source of ground-water contaminants and may represent a potential risk, if contaminated, there should be some data available to define the degree of soil contamination currently present in these areas. If there is another document, or documents that present the results of soils investigations in the Site 57 and Site 58 areas, then those reports should be referenced, and their findings summarized, in this RI Report. At the close of the first paragraph of Section 2.1.1, the text states that for Site 57, no soil sampling was required as a part of the RI. Some statement should be added that explains why no soil sampling was required. If there is a reason that no soil sampling occurred at Site 58, that reason should be presented in the RI Report.
2. Table 1-1 shows all total naphthalene entries as a dashed line. Since not analyzed is indicated in the table as "NA" and non-detect results are reported as "U" values, it is unclear what the total naphthalene entries mean. For that matter, it is unclear why total naphthalenes are even included in the table, since there was apparently no detection of total naphthalenes.
3. In the first paragraph of Section 2.1.5 the text indicates that water levels were measured at Site 57 in September 2001 and at Site 58 in both September and December 2001. However, the text then states that December 2001 data were used to generate a potentiometric surface map for Site 57. This discrepancy needs correction.
4. Section 2.2 and Section 2.4 need to include the date for temporary well construction and for temporary well and sediment sampling.

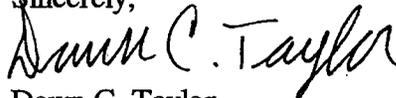
5. Section 2.5.1 indicates that one Shelby tube sample was collected at each Site to obtain geotechnical data for use in contaminant fate and transport calculations. Some justification is needed for only obtaining one sample from each location, since it is conceivable that just one sample would not be representative of the subsurface for the entire area of investigation. If there are previously collected data that support a conclusion that subsurface conditions are highly uniform across the area of investigation, that data should be referenced here. The text could possibly cite the geotechnical data from the two borings as evidence of the relative uniformity of the surficial aquifer materials. Otherwise, the use of the geotechnical data in contaminant fate and transport analyses must be qualified in the RI Report, because of the uncertain representativeness of the data.
6. The statement in the last paragraph of Section 3.2.2 regarding soil contaminant leachability is correct where sufficient time has elapsed for the soil contaminant leaching to translate to ground-water contamination. Where there has been a recent contaminant release, ground-water quality data will probably not indicate the leachability of the soil contaminant. The language in this section needs to be changed to reflect this qualification.
7. As a general comment that with regard to Florida's "Groundwater Cleanup Target Levels" (GCTLs), it has previously been EPA Region 4's position that because the state regulation (FAC 62-777) that presents these GCTLs is by definition applicable to sites being addressed under Florida's brownfields, petroleum cleanup, and dry cleaner programs; the GCTLs "...are default cleanup criteria and do not establish standards..."; and the GCTLs are in some cases not based on either human health risks or state primary drinking water standards, cleanup to these ground-water target levels should not be considered as a remedial action objectives for sites that are being addressed under CERCLA regulations.
8. The next to last sentence in Section 4.5.1.3 would be improved if it references the 85 foot to 95-foot thickness of surficial aquifer materials as being applicable to Site 57 and Site 58, rather than to "the site." Alternatively, "the site" could be better defined (i.e., if it is the entire Cecil Field area, that should be clearly stated).
9. Section 4.5.2.3 includes several statements that refer to "the site." As with the previous comment, it is unclear what is meant by "the site." Also, with regard to the second paragraph of Section 4.5.2.3, the text first states that the average hydraulic gradient across the entire site is 0.005, then states that the gradient at the site averages approximately 0.01. Some consistency in defining the average gradient is needed.
10. In the Section 4.5.2.3 calculations of the ground-water flow, the hydraulic gradient for the shallow zone was assumed to be 0.005 while the hydraulic gradient for the deep zone is listed as 0.01. Some reason for applying the two different gradients to the two monitoring zones needs to be presented in this section. The report only shows potentiometric contour maps for the shallow monitoring zone and a map should be included (at least for Site 57) that also shows potentiometric contours for the intermediate zone.
11. In Section 5.1.1, the first paragraph indicates that December 2001 data were used in the evaluation of Site 57 ground-water quality. The text in this paragraph states that samples were obtained from 31 existing and 10 new monitoring wells. In the same paragraph, the text states that in December 2001, four wells were resampled and two new wells were sampled. This wording implies that most of the 41 monitoring wells were sampled before December but only the data from the 6 wells sampled in December were considered in the

evaluation of Site 57 ground-water quality. Either the wording in this paragraph needs to be changed or an explanation is needed for why the data from most Site 57 wells were not considered in the site evaluation.

12. In Section 5.2.1 on page 5-3, the first paragraph references Site 57, when the discussion concerns Site 58.
13. In Section 5.4 on page 5-7, the text states that just east of Building 846, the petroleum plume is limited to the shallow zone of the surficial aquifer but extends into the intermediate zone further to the west. The direction where the plume is present in the intermediate zone should be further east of Building 846. Also, a review of data presented on Figure 5-1 indicates that the plume also extends into the intermediate zone around or somewhat west of CEF-824A-21I. CEF-824A-21I is the intermediate well that is closest to the eastern side of Building 846.
14. A word is missing in the last sentence of Section 6.1.2
15. On page 6-8, the discussion of chloride states that an increase of chloride in the downgradient direction provides direct evidence that dechlorination is occurring. This statement is not always correct. For instance, chloride concentrations could increase in a downgradient direction where there is a chlorinated solvent plume commingled with ground-water contamination by landfill leachate, or where there is a natural chloride concentration gradient in the ground water. Thus, some qualification is needed in this statement.
16. At the close of the first paragraph of Section 6.3.2.1, the text states that sulfide and hydrogen sulfide generally decreased in a downgradient direction, suggesting sulfide reduction. The process discussed earlier in Section 6.3.1 is sulfate reduction and the text in that discussion on page 6-7 indicates that increasing sulfide or hydrogen sulfide concentrations in the downgradient direction are indicative of sulfate reduction. Some modification to the first paragraph of Section 6.3.2.1 is needed.
17. In the second paragraph of Section 6.3.2.1, the text needs to qualify that the TOC concentration of 39.5 mg/L indicates an adequate source of naturally occurring carbon for biodegradation involving reductive dechlorination.
18. Table 6-1 indicates there should be a footnote (1) in the table. This footnote needs to be added.

Should you have any questions, or if I may be of further assistance, please contact me by phone at (404) 562-8575 or by email at [taylor.dawn@epa.gov](mailto:taylor.dawn@epa.gov).

Sincerely,



Dawn C. Taylor  
Remedial Project Manager

cc: Scott Glass, SOUTHDIIV  
Mark Speranza, TTNUS  
David Grabka, FDEP  
Sam Ross, JA Jones