



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

REGION 4

ATLANTA FEDERAL CENTER

61 FORSYTH STREET

ATLANTA, GEORGIA 30303-8960

Friday, February 27, 2004

4WD-FFB

William J. Hill  
CodeES31  
South Division  
Naval Facilities Engineering Command  
2155 Eagle Dr.  
P.O. Box 190010  
North Charleston, South Carolina, 29419-9010

Subject: Draft Remedial Investigation Addendum Report, OU2, NAS Pensacola,  
Pensacola, Florida

Dear Mr. Hill:

GENERAL COMMENTS:

1. Background information is not developed and presented clearly in this document and would be a helpful comparison for data interpretation and understanding of operable unit contamination, fate, transport and extent. Please expand on the area background and history as well as the geology so the reader can build a conceptual understanding of a site model.
2. Several comparisons are briefly made to 1993 and 1995 data. First of all, the comparisons should be expanded, and shown in mapped figures in order to present changes in previously identified contaminant plumes. This will show changes in plume location and may show any possibility of changes in direction or fate and transport over ten years. Secondly, the text points out the accuracy of 1995 data over the 1993 data, but does not build on this point in data analysis. Please revise text to incorporate these concerns.

3. Please include section on groundwater elevations in which recharge to surface locations are evaluated and identified clearly in a mapped figure. This will help to show possible transport pathways for groundwater contamination.

SPECIFIC COMMENTS:

1. Page 1, Section 1.0, paragraph 2: Text suggests that Figure 1 shows location of OU2. Figure 1 is actually a layout for OU2. Please include a figure to show location of OU2 within base limits and nearby land/water features. This presentation is important for the reviewer to gain a visual concept and understanding of the area before presenting the site layout. Please show the actual boundaries of OU2.
2. Page 3, Section 2.0: Section is meant to actually provide a summarized background, historical use and site geology for the operable unit and its encompassing sites in order to give the reviewer background knowledge of the area before presenting data. The reference to the previous RI report from 1995 is not sufficient, since it is not easily accessible for the reviewer. Please expand this section to include a background history for each site, area geology and historical groundwater flow, as well as results and figure-aided plume identification from the previous 1993 and 1995 data.
3. Page 4, Section 3.2, paragraph 2: Text states that "four locations previously scheduled for groundwater resampling had been demolished. As a result, four new monitoring wells were installed to obtain the groundwater samples in those locations. These are designated as 11GS16, 12GS17, 25GS10, and 30GS175." The demolished wells are never identified, and when data is presented in tables, the corresponding data from demolished wells are never paired with data from the new replacement well. Since these were replacements, a comparison of these data should be included in text and tables. In consequence, data from each of the new wells would be included next to the original well exceedences from 1993 and 1995. For instance, is seemed there are no metal exceedences in 2003 for wells 12GS17, 25GS10, and 30GS175, since they are not included in table 4. It would be of interest to show this next to the original well exceedences in which a decreasing trend in concentration would result-if this is, in fact, the case. Please include.
4. Page 8, Section 5.0, paragraph 1: Text states, "Only current exceedences were mapped." All figures in this presentation would benefit from expanding the small exceedence tables in each figure to include previous exceedences. This would provide a better understanding of the area exceedences. It would help to show if there are changes in plume locations, as well as show increasing and decreasing trends in a conceptual site model. Please include.
5. Page 11, Section 5.1, Feasibility Study Question 1: Text states, " There has been a downward trend in soil contamination with respect to metals." This should be modified to include, "with the exception of chromium measured at location 011S001506."

February 27, 2004

6. Page 11, Section 5.1, Feasibility Study Question 2: Text states, "decreases are noted for locations ..." This is not true, as 27GS10 shows increase in cadmium, 30GS27 shows increase in chromium, 30GS103 shows increasing lead. Please revise. Text goes on to note increases in only 3 wells. It should also include cadmium for 11GS15, Cadmium and lead for 11GS07, cadmium for 12GS08 and 12GS09, lead for 30GS06 and 30GS103. Barium slightly increases for 11GS13. Also increases from 1995 concentrations were noted for cadmium in 12GS10, chromium in 30GS27, and barium in 11GS13, but these exceedences were lower than in 1993. Since page 2, section 1.2, paragraph 1 suggests that the 1995 values are more accurate, this distinction is important to include.
7. Page 21, Section 5.4, Feasibility Study Question 2: The distinction between changes in concentrations between the 1993 and present vs. 1995 and present data is made, but it is not noted whether the difference from 1995 to present data is more valid due to the accuracy of testing in 1995 vs. 1993. Please include.
8. Page 39, Section 6.0, Metals, paragraph 1: Text note two exceedences in nine soil samples. Chromium exceeds criteria in two locations and arsenic at one of these locations. Please revise.
9. Page 39, Section 6.0, Metals, paragraph 2: Text states that 10 locations show decreasing concentrations and three show increases. Please re-evaluate this statement, as it appears there are several more increasing concentrations for groundwater contaminants in sampled wells. This reviewer counts several increases in a single groundwater contaminant for several wells, not counting iron manganese and aluminum. Also, per comment for page 4, the exceedences for replacement wells are not compared to old demolished wells. Please include.
10. Page 39, Section 6.0, SVOCs, paragraph 1: There are 18 exceedences in 7 locations, not 16 in 6 locations. Please revise text (twice in this paragraph) per comment below for table 14.
11. Page 40, Section 6.0, VOCs, paragraph 1: There are 47 exceedences in 22 locations, not 42 in 22 locations. Please revise text per comment below for table 17.
12. Page 40, Section 6.0, VOCS, paragraph 2: Text comments directly on comparison from 1993 data to present. Please include analysis for the comparison to 1995 data, since it was deemed "more accurate" due to low flow measurement techniques.
13. Table 2: Tables notes state "Bold indicates an exceedence of higher SCTL or NASP reference." This is not clearly discussed in text. It seems an exceedence should be marked by the lower of the two standards in order for risk criteria to be upheld. Please comment and revise if necessary.
14. Table 4: Tables notes state "Bold indicates an exceedence of higher SCTL or NASP reference." This is not clearly discussed in text. It seems an exceedence should be

February 27, 2004

marked by the lower of the two standards in order for risk criteria to be upheld. Please comment and revise if necessary.

15. Table 4: Well 11GS07- second result column year is not included. It is assumed that this is 2003. Please revise.
16. Table 5: Sample 030S012304- Please change sample year from 2004 to 2003.
17. Table 14: Sample 30GI111 is confused with 30GS111, which is not included. Change 30GI111 to 30GS111. Then add a line for 30GI111 where 1993 exceedences =2, 1995=2, and 2003=2 where 1,4- dichlorobenzene and 2,4- dichlorophenol decrease.
18. Table 17: Sample 27GS18- result column year missing.
19. Table 17: sample 30GI111- result column years confused, 1992 and 1993 instead of 1993 and 1995. Please revise. Once changes are made, there are 18 exceedences in 7 locations.
20. Table 18: 2003 exceedences for 30GI111 and 30GS111 should be 3 instead of 2 where benzene increases. 2003 exceedences for 30GS06 should be 3 instead of 2 where benzene decreases. Table 17 indicates 30GI170 was not analyzed in 1995. 1995 exceedences for 11GM47 should be 4 instead on 3. 1995 data are missing from table 17 for 27GS18 where this table suggests there were 2 exceedences. Table 18 should also include 11GM28 where benzene decreases, and 11GI10, where 1,2 dichloroethene slightly decreases. Once changes are made, there are 47 exceedences for VOCs in groundwater in 22 wells.

Sincerely,

 **Gregory D. Fraley**  
Digitally signed by  
Gregory D. Fraley  
DN: cn=Gregory D.  
Fraley, o=US  
Date: 2004.02.27  
14:55:26 -0500

Gregory D. Fraley  
Senior Remedial Project Manager

cc: Tracie Vaught, FDEP