

N60508.AR.000627  
NAS WHITING FIELD  
5090.3a

LETTER REGARDING U S EPA REGION IV REVIEW WITH CONCERNS ON TECHNICAL  
MEMORANDUM ONE THROUGH SIX AND REMEDIAL INVESTIGATION FEASIBILITY  
STUDY NAS WHITING FIELD FL  
9/11/1992  
U S EPA REGION IV



UNITED STATES ENVIRONMENTAL PROTECTI  
REGION IV

03.01.00.0013

1000039

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

SEP 11 1992

4WD-FFB

Certified Mail  
Return Receipt Required

Ms. Kimberly Queen  
Remedial Activities Branch  
Department of the Navy, Southern Division  
Naval Facilities Engineering Command  
2155 Eagle Drive  
P.O. Box 10068  
Charleston, SC 29411-0068

Re: Remedial Investigation and Feasibility Study  
Phase I Data and Phase II-A Work Plan  
Naval Air Station (NAS) Whiting Field  
Milton, Florida

Dear Ms. Queen:

The Environmental Protection Agency (EPA) has completed its review of Technical Memorandums 1 through 6 of the Remedial Investigation and Feasibility Study (RI/FS) May 1992 for NAS Whiting Field. This review is provided to the Navy under the consultation provisions for the Installation Restoration Program (IRP) specified in Section 211 of CERCLA/SARA. Overall, the documents are well done and present needed information about the various sites and the facility itself. However, EPA has various concerns regarding the proposed investigatory work at NAS Whiting Field and submittal documents of the Navy for this facility. These concerns are addressed in the General Comments section of the attached comments. In addition, site specific concerns are addressed in the Specific Comments section.

If you have any questions about these comments, please contact Mr. Robert H. Pope at (404)347-3016.

Sincerely yours,

*Michael J. Hartnett*  
for Jon D. Johnston, Chief  
Federal Facilities Branch  
Waste Management Division

cc: Jim Crane  
FDER

EPA COMMENTS ON REMEDIAL INVESTIGATION AND  
FEASIBILITY STUDY NAS WHITING FIELD  
TECHNICAL MEMORANDUMS 1 THRU 6

GENERAL COMMENTS

1. The information provided in these documents and in previous documents indicates that NAS Whiting Field is a probable candidate for inclusion on the National Priorities List (NPL). In fact, the Navy's own Hazard Ranking Scoring effort scored the facility above the cutoff for the NPL. With this in mind, the current and future work should be carried out as if NAS Whiting Field is already on the NPL. In accordance with the Superfund Amendments and Reauthorization Act (SARA) all Installation Restoration Program (IRP) sites should meet CERCLA guidelines. All sampling, laboratory quality assurance/control, well placement and development, evaluation of pathways, targets, and/or receptors should meet with EPA's, the Florida Department of Environmental Regulation's (FDER), and the Natural Resource Trustees' approval. Region IV specifically requests that all work follow the guidelines stated in Region IV's Environmental Compliance Branch Standard Operating Procedures and Quality Assurance Manual of February 1, 1991.
2. The phased RI/FS approach is no longer used at CERCLA sites. The RI is a continuous process that continues until enough information has been gathered to complete an FS and/or to scientifically justify a decision on a site. NAS Whiting Field must not expect to perform a timely or cost effective RI in multiple Phases. Field work may be done in rounds, with the results then analyzed and the need for further investigation requirements based upon those analyses.
3. Previously, approval was given to the Navy to submit documents in a Final form. This procedure is no longer appropriate. It has been EPA's procedure at other federal facilities under the CERCLA program that documents are submitted in the following manner:
  - Documents shall be submitted in Draft form. An appropriate period of time shall be allowed for EPA review.
  - The Navy shall then respond to EPA's comments and incorporate them into a Draft Final version of the document.

- EPA will then comment further or approve the document. If approved, the Draft Final version will become the Final document.
  - No field work should proceed until final approval has been given by EPA.
4. In the next phase of the RI/FS, an ecological study and accompanying Ecological Risk Assessment is planned. It is imperative that the Natural Resource Trustees (NRTs) be involved in this process as much as possible. NRTs are appointed by the President to act in behalf of the public to protect the nation's natural resources. It is the Navy's responsibility to ensure that the NRTs are involved and satisfied with the efforts the Navy is making to protect the natural resources. In addition, the Navy itself is a Natural Resource Trustee of the resources within the boundaries of NAS Whiting Field. It is recommended that federal facilities appoint an individual on-site to act as the facility's NRT representative. This person should not be the facility project manager.
  5. The Navy has proposed presenting the data gathered in Phase II-A of the RI/FS in Technical Memorandums at the end of the data gathering effort. Due to the length of time that the Navy has estimated Phase II-A will take (21 months), EPA is requesting that Technical Memorandums be submitted in draft form as the work is completed - not at the end of twenty-one months. Submitting future documents in this manner will allow adequate review time.
  6. There seems to be an overall problem with laboratory analysis. Care needs to be taken to ensure that decisions that are made can be based on quality lab data. In addition, it was earlier requested by EPA that stainless steel monitoring wells be installed to prevent adsorbing of the organic compounds onto PVC wells. The Navy decided to go ahead with using PVC wells due to cost considerations. Organic compounds have been positively identified as contaminants in ground water and problems have been encountered in some analyses, therefore, EPA recommends that all future wells be constructed using either stainless steel or Teflon casing and screens.

## SPECIFIC COMMENTS

### Technical Memorandum No. 1 Geologic Assessment

The information provided is complete and adequate. The EPA agrees with the conclusion that a continuous clay layer does not exist under NAS Whiting Field. Localized confining conditions might exist under individual sites and this can be determined on a site-by-site basis.

### Technical Memorandum No. 2 Hydrogeologic Assessment

The information provided is complete and adequate. There are several sites where BAT samples appear not to have been taken downgradient, but that is addressed in the proposed work.

### Technical Memorandum No. 3 Soils Assessment

1. Figure 1-4 (page 1-7) is generally inadequate to determine the extent and the exact location of individual sites. Sites 9 and 10 are drawn on the map as only one site. Topographic lines around the area of Clear Creek west of NAS Whiting Field are very difficult to distinguish. A better presentation would be to have a smaller scale map or an individual map for each site included within the report.
2. On page 2-1, section 2.1, details of ditch construction are unclear. Is the point where the fluids were dumped within the confines of the concrete flume, or did fluids run into the flume after being poured into an earthen ditch?
3. Page 2-1, section 2.1, indicates that samples were confined to the top 6 inches of soil. Justify or explain. Also, why was no soil sample taken at the out-fall of the concrete flume into open ditch "0-2"?
4. Page 2-3, section 2.2, indicates that samples were confined to 1-2 feet. Justify or explain.
5. Figure 2-2, page 2-4, shows soil sampling locations in the middle of the waste piles at Site 12. The height and areal extent of the waste piles should be detailed further in the text. Also, direction of water flow across site 12 needs to be indicated, either by textual description, flow lines, or surface contours.
6. Figure 2-2, page 2-4, indicates that the area of Site 12 is larger than 25' by 25' as described in Table 1-1 (page 1-9). Correct or explain.
7. Page 2-3, section 2.3, describes sample location WHF-15-1-SD-01 as being placed in the turn of the former

ditch. Figure 2-4, page 2-5, indicates otherwise. Correct or explain.

8. According to Figure 2-4, page 2-5, no samples were taken along the ditch to the west of site 16. In addition, none are planned for Phase II-A. Justify or explain.
9. The soil sampling locations for Sites 15 and 16 are only representative of surface contamination that has occurred in "A" Ditch. The proposed soil sampling for Phase II-A does not examine all possible contamination routes.
10. Page 3-1, section 3.1, indicates that 10 more samples were taken for the Site 6 investigation. The objective and method of collection for these samples were not described in section 2.1.
11. Only surface samples were taken at Site 12. These samples do not adequately characterize the site. Subsurface samples need to be taken during Phase II-A.

#### Technical Memorandum No. 4 Surface Water and Sediments

1. Figure 1-4 is, as in Tech Memo 3, generally inadequate. The preceding comments regarding this figure still apply.
2. Section 2.1, Sampling and Analysis (page 2-1), indicates that 12 surface water and sediment samples were taken, while figure 2-1, (page 2-2) shows 13 sampling locations. It should be indicated in the Section 2.2 text that sampling location 10A was a temporary stream flow sampling location.
3. The first sentence of the third paragraph on page 2-3 indicates that there is no flowing water at Station 2. Does this refer to the previous location of Station 2 to the west of Sites 1, 2, 17, and 18 before relocation or the current location of Station 2 as indicated on Figure 2-1? Does the wetland where Station 2 was relocated contain water?
4. The source of the floodplain level information on Figure 3-3 is not given in the text. Please provide it.
5. Figure 3-3 (page 3-4) shows that Clear Creek has no 500-year floodplain. The text on page 3-1 indicates that none of the sites are located within either the 100- or 500-year floodplain. However, Site 16 appears to lie in a low, flat area along the east bank of Clear Creek. Also, the text on page 1-10 indicates that effluent from the WWTP is "discharged onto the floodplain of Clear Creek." This point appears to be on or above Site 16. It cannot be concluded with the data provided that Site 16 does lie outside of the 100-and 500-year flood prone areas.
6. Table 3-1 on page 3-5 indicates that Site 15 is closer to

surface water that Site 16. According to the provided maps, Site 16 appears to be closer to Clear Creek than Site 15. Please explain or correct.

7. In regards to the final sentence on the location of Station # 8 in Appendix A, EPA recommends that site reconnaissance teams carry more than one writing instrument with them in the field.

Technical Memorandum No. 5 Groundwater Assessment

1. On page 3-8, the contamination problems associated with the use of drilling mud are discussed. Why was the drilling mud not sampled prior and after use to determine if it was contributing to the contamination of wells?
2. On pages 3-8 and 3-9 table 3-8 is discussed and displayed. Using BAT samples to estimate background ranges of metals in groundwater is not acceptable. Background metals concentrations should be determined only with background samples taken in upgradient wells!
3. On page 3-12, the locations and results of BAT samples in the industrial area are described. Why were BAT samples taken only in the upper three (3) feet of the production zone?
4. Pages 3-17 thru 3-20 make references to several buildings (2941, 1424, Hardstand, 1404, 1406, etc.) in figures 3-3 and 3-4. These buildings are not marked in these figures making interpretation impossible and the figures almost useless. If available, marked blueprints of the entire facility (especially the Industrial Area) would be extremely useful.
5. On page 3-20, it is stated that Site 4 and 7 are being investigated under the Navy UST program. Tank sludges are generally not CERCLA exempt. The investigations of these sites should meet CERCLA standards as well as Florida 17-770 UST regulations. Therefore, data gathered at these sites should be included in all NAS Whiting Field documents sent to EPA for review and comment.
6. On page 3-28, it is indicated that contamination in the deeper part of the aquifer under Site 16 may be flowing under Clear Creek. In order to prove or disprove this theory it is necessary to take ground water samples on the western side of Clear Creek. The possibility of ground water contamination having already migrated off of NAS Whiting Field property is of major concern. Phase II-A investigations should definitely address this concern.
7. On page 3-35, it is stated that, "Well WHF-12-1 appears to be completely outside of any area of potential impact and may represent background conditions." While it is quite

possible that Well WHF-12-1 is outside of the area of impact, it is not acceptable to use it as a background well because it is not upgradient of Site 12. In addition, it should be pointed out that there are no wells directly downgradient of Site 12 and that the ground water has not been thoroughly tested nor has it been sufficiently determined to not be contaminated.

8. The last sentence on page 3-44 states, "No further groundwater explorations are necessary for Site 12." EPA does not agree with this conclusion for the above stated reasons.

Technical Memorandum No. 6 Phase 1 Data Summary and Phase II-A Work Plan

1. Page 4-2, Section 4.2.1: The definition of "deeper samples" was not provided in the discussion.
2. Figure 4-5 labels two shaded areas as Site 11, while Figure 3-6 labels one area as Site 11 and the other area as Site 12. Explain or correct.
3. Page 4-9, Section 4.3.1: The document recognizes that at Site 6 (Transfer Disposal Area) the concentration of PCBs in the 12 samples collected was low (160 ug/kg maximum). The document then states that the co-disposal of PCBs with solvents could increase the migration potential for the PCBs, although apparently this type of scenario has not yet been identified. The Phase II-A sampling plan should be based on the data results from Phase I, not speculation about co-disposal scenarios that are not supported by the data.
4. On page 5-7, it is stated that, "Sediments at Station 2 (Clear Creek) ... were contaminated by organic and inorganic chemicals" (first paragraph), then later states (paragraph three) that "In general, the sediments of Clear Creek itself were free from toxic or hazardous chemicals attributable to NAS Whiting Field activities." Explain or correct.
5. Also on page 5-7, it is stated that, "appreciable background concentrations of PAHs are frequently observed in soil where...frequent wild fires occur..." Please provide a technical reference for this statement. Facility-specific background samples should be taken at NAS Whiting Field to determine background concentrations of PAHs.
6. On page 5-9, it is stated that a pyrene concentration in stream sediment of 36 ug/kg has "no public health or environmental significance and may be a component of background conditions." Again provide a technical reference for this conclusion. Only true background samples should be used to determine background concentrations. The

health/environmental effects of contaminants should be examined and conclusions drawn in a full risk assessment effort.

7. On page 6-1, it is stated that one of the specific objectives of the groundwater screening program was to, "confirm the absence of contamination in the water table aquifer component at Site 2." EPA does not believe this can be accomplished by the limited sampling that was done in Phase I.
8. A timeline-type schedule should have been provided in Section 7 of Memorandum No. 6. EPA requests that a timeline for at least Phase II-A be provided immediately.
9. On page 7-1, it is stated that, "No Action Decision Documents" will be prepared for Sites 2 and 12. EPA does not agree or approve of this action based on the presently available data. Both Sites 2 and 12 need further investigation.
10. On page 7-5, an Ecological Survey and a Public Health Survey are described. While both of these are necessary and useful to support a full Baseline Risk Assessment, EPA would like to point out that they are only supporting documents and not to be considered a Risk Assessment by themselves. In addition, the data generated for these documents will be of primary interest to the Natural Resource Trustees. These surveys should be used to prepare a workplan for the Baseline Risk Assessment, which is subject to EPA and Trustee approval.
11. On page 7-6, the workplan states (paragraph 2) that PVC will be used for well casings at NAS Whiting Field. Once again, EPA recommends the use of either stainless steel or Teflon when the presence of organic compounds is anticipated (as it is at NAS Whiting Field).
12. Also on page 7-6, it is stated that "wells will be purged for at least three volumes, until the water is clear and free of silts, and/or until field measurements...stabilize." EPA recommends that at least three well volumes be purged, with sample collection permitted following the stabilization of Ph, temperature, and conductivity. If measurement readings do not stabilize after five volumes have been purged, the well may be sampled.
13. In reference to all test pit sampling at NAS Whiting Field, as first described on page 7-18, the use of visual observations and an OVA in any test pit (or elsewhere) should not be relied on for the elimination of sampling locations. An adequate number of samples should be collected from each pit/area regardless of the visual observations and OVA readings, although these techniques

could be used to enhance sample selection.

14. Also on page 7-18, it is stated that, "as many as seven subsurface samples from each of the 50-foot boring...will be collected". What is the minimum that will be collected in the event of "negative" OVA responses?
15. On page 7-27, five surface soil sampling points are proposed for Site 10. Why are the proposed locations not marked upon any figure?
16. For Sites 11 and 12, a background, upgradient well is needed for these two sites. It should be placed north-northwest of the two sites.
17. For Site 16, what analyses will be performed on the soil samples collected from the test pits? EPA recommends full TCL/TAL.
18. On page 7-32 and several other places in Section 7, it is stated that details of EM-31 and GPR techniques are included in Appendix A. The details are not in Appendix A of the documents EPA received.
19. The paragraph immediately following Table 7-14 on page 7-34 makes absolutely no sense. Please correct or explain what is attempting to be stated in the paragraph.
20. On page 7-37, the collection of 52 surface samples and 42 sub-surface samples seems excessive for an approximately 2000 square foot site. Please further explain and clarify the rationale for so many samples.
21. Appendix A, Decontamination (3.9): The procedure for downhole equipment should be in accordance with that recommended by Region IV's Environmental Compliance Branch Standard Operating Procedures and Quality Assurance Manual of February 1, 1991.