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NAS WHITING FIELD
5090.3a

LETTER REGARDING U S NAVY INVITATION TO FLORIDA DEPARTMENT OF
ENVIRONMENTAL PROTECTION TO DISCUSS COMMENTS ON FINAL REMEDIAL
INVESTIGATION FEASIBILITY STUDY TECHNICAL MEMORANDUMS ONE THROUGH SIX
NAS WHITING FIELD FL
11/6/1992
NAVFAC SOUTHERN



DEPARTMENT OF THE NAVY
SOUTHERN DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
2155 EAGLE DR., P. O. BOX 10068
CHARLESTON, S. C. 29411-0068

09.01.00.0025

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THE SIGNER OF THIS LETTER,
REFER TO:

5090
Code 1859

06 NOV 1992

Florida Department of Environmental Regulation
Attn: Mr. Jorge R. Caspary
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Subj: NAVY'S RESPONSE TO COMMENTS ON TECHNICAL MEMORANDA 1 - 6 FOR
THE PHASE I REMEDIAL INVESTIGATION AT NAS WHITING FIELD

Dear Mr. Caspary:

On behalf of Naval Air Station (NAS), Whiting Field, Southern Division, Naval Facilities Engineering Command would like to invite you to attend a meeting regarding the above subject matter. This meeting will be held at the Environmental Protection Agency's office in Atlanta, Georgia. The meeting will begin at 9:30 AM on Friday, November 13, 1992. We will be meeting with Mr. Robert Pope of EPA Region IV.

Enclosed is a copy of the comments received by the Navy from each respective agency and our response to these comments for your review before the meeting.

We appreciate your input into the work at NAS Whiting Field. If you have any questions, please contact Ms. Kim Queen, Code 1859, Southern Division, Naval Facilities Engineering Command, at (803) 743-0341.

Sincerely,

J.L. MCCAULEY, P.E.
Acting Director
Environmental Division

Encl:

- (1) Navy's Response to Comments
on NAS Whiting Field's
Technical Memoranda 1-6

RESPONSE TO COMMENTS (Technical Memoranda)
of
FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION (FDER)

Naval Air Station Whiting Field, Milton, Florida

Comment Number	Comment	Response
TECHNICAL MEMORANDUM NO. 1		
1.	The document and the background data are satisfactory for their purposes.	No response required.
TECHNICAL MEMORANDUM NO. 2		
2.	The hydrogeological data collected during Phase I of the RI, and presented in this document is satisfactory for its purposes.	No response required.
TECHNICAL MEMORANDUM NO. 3		
3.	pp. 2-1. It is stated that the soil sampling program was conducted on December 3 and 4, 1991; however, Appendix B shows that the laboratory received the soil samples on December of 1990. Moreover, tables in Appendix C show that the soil sampling for the drainage swales was also conducted on December 4, 1990. If this is the case, explain the delay of over a year in presenting this data.	The soil sampling program was conducted on December 3 and 4, 1990 not December 3 and 4, 1991.
4.	Acetone seems to be a problem throughout the laboratory analysis. For instance, Appendix C Sample No. 16SL02 presents Acetone at 71,000 ug/kg. The consultant indicates that this may be the result of decay of pesticide grade isopropanol alcohol; however, at the quantitation level presented above, it seems that improper QA/QC protocols are being followed. It is hoped that this problem will be addressed during Phase II.	The acetone contamination problem is presently being addressed during the Phase II-A field program. After the second rinse with pesticide grade isopropanol the sampling equipment is being rinsed with copious amounts of organic free water in an effort to eliminate the detection of acetone in the environmental samples. In addition, isopropanol samples will be tested regularly for acetone to ensure that this problem does not occur. An organic free water trailer has been placed onsite to provide an ample supply of rinse water. Level C and Level D DQOs will be applied to all samples during Phase II-A. Therefore similar problems will be addressed during data validation.
5.	Please provide an explanation of the data qualifiers on the various appendices. Also, in the future documents, please provide original laboratory data such as those provided in Appendix B.	In the future an explanation of data qualifiers will be provided in the appendices. However, due to the great number of samples to be collected and the thousands of associated original laboratory data sheets to be generated during Phase II-A, a summary of the detected compounds rather than the original data sheets will be provided in the appendices.

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Comment Number	Comment	Response
TECHNICAL MEMORANDUM NO. 4 - SURFACE WATER & SEDIMENTS		
6.	The document and the data presented are satisfactory for their purposes.	No response required.
TECHNICAL MEMORANDUM NO. 5 - GROUNDWATER ASSESSMENT		
7.	It is difficult to understand some of the designations for samples in the appendices and figures. For instance, at Site 10 the consultant installed two Cone Penetrometer Tests (CPTs) under the same designation WHF-10-CPT-1, however the groundwater results table in Appendix A show two different designations, one being WHF-10-WP-01-01 and another WHF-10-WP-02-02; it is not clear to which CPT these samples belong. Another designation/locator system must be implemented to avoid confusion for reviewers of subsequent documents.	<p>The exploration and sampling number designation follows the Navys guidelines as presented in the USEPA approved workplan and will remain the same to provide consistency throughout the RI. Future reports will provide a more detailed explanation of the designation to prevent confusion.</p> <p>Sample Number WHF¹-10²-WP³-01⁴-01⁵ identifies the following:</p> <ul style="list-style-type: none">¹ WHF - Whiting Field² 10 - Site 10³ WP - Well Point (BAT Groundwater Sample)⁴ 01 - Sampling location 1 at Site 10.⁵ 01 - Shallow Sample (Water Table) 02 - Deep Sample (Production Zone) <p>As indicated earlier, future reports will provide a more detailed explanation of the sample numbering system. Table 2-1 does have a typographical error, only a shallow sample (WHF-10-WP-01-01) was collected at Site 10. The second sample WHF-10-WP-01-01 should be deleted.</p>

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	TECHNICAL MEMORANDUM NO. 6 - PHASE I DATA SUMMARY AND PHASE II-A WORK PLAN.	
	<u>Phase I Data Summary</u>	
8.	The summary is adequate for its purposes.	No response required.
	<u>Phase II-A Work Plans</u>	
9.	While the work proposed in Phase II-A is in general satisfactory, it suffers from a flaw in this approach. It seems that by designating the second stage as Phase II-A, an additional third stage, presumably "Phase II-B", has already been planned. The approach of dividing the assessment work into three and even four phases has been called onto question at other Navy installations by EPA and to an extent, by FDER. Any additional phase to be performed beyond Phase II-A is warranted only when the scope of work to be performed during the previous phase is not sufficient to adequately delineate the extent of contamination in soil or groundwater. As it stands, this document does not make provisions to accurately delineate the final extent of contamination at sites with confirmed contamination. It is very rigid in the sense that a definite number of soil borings and monitoring wells per site will be installed.	Due to the limited scope of the Verification Study it was necessary to fill data gaps including hydrogeologic setting and presence of contamination in soil and groundwater at each site to gain an understanding of site conditions prior to the collection of data to characterize the nature and extent of contamination. In this sense the Phase I RI was equivalent to an Extended Site Inspection (ESI). Furthermore, 23 Sites have been identified at NAS Whiting Field (five of which were added after the completion of Phase I and have never been investigated). To complicate matters further, the depth to the water table typically is greater than 100 feet and overlapping groundwater contamination plumes from different sites exist among a complex geologic system of interbedded sand and clay layers. So, to conduct a single phased RI at 23 sites under the existing site conditions would involve the drilling of hundreds of soil borings and installation of hundreds of monitoring wells over a long period of time and due to the Navys budgetary constraints it would not be feasible or cost effective. By conducting the RI in a phased approach data are able to be collected and evaluated under budgetary controls all the while moving forward to the RI objective of characterizing the nature and extent of contamination at each site.

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Comment Number	Comment	Response
10.	<p>Previous experience has shown that additional work will be needed beyond the so called Phase II-A. To avoid this, it is suggested that the approach presented in this document be revised to be more flexible, that is, additional soil borings and monitoring wells should be installed as needed and, most importantly, while in the field based either on quick laboratory turn around times or by the placement in the field of a portable gas chromatograph in order to make decisions in "real time". The Navy via budgetary planning and the contractors via a comprehensive Phase II work plan should direct every effort to make Phase II-A the final assessment phase so that the RI/FS proceeds in a timely manner.</p>	<p>Please see response to comment 9. The Navy agrees with the reviewer that efforts must be made to complete the program in a timely manner, and if possible make Phase II-A the final assessment phase. But, examples cited in the comment do not meet the Level C and Level D quality control requirements under the IR Program.</p>
<p><u>Phase II Workplans Site Specific Comments</u></p>		
<p><u>Site 1</u></p>		
11.	<p>Figure 7-4. Please explain the rationale in the placement of monitoring wells MW-WHF-1-2. It seems upgradient of groundwater flow.</p>	<p>Groundwater flow at Site 1 generally appears to flow to the south and the proposed monitoring well has been positioned on the south side downgradient of Site 1. See attached figure (Figure 3-3 from Technical Memorandum No.2).</p>
12.	<p>pp 7-13. Due to the fact that the soil and groundwater have not been investigated on the northern part of the site, please expand the soil boring and groundwater assessment program so that it included this area.</p>	<p>Based on the results of the downgradient explorations (i.e. presence of contamination) upgradient explorations north of Site 1 may be warranted during Phase II-B.</p>
<p><u>Site 2</u></p>		
13.	<p>A No Further Action (NFA) is proposed for this site. Said NFA is premature at this time due to the size of the site and past disposal activities. At a minimum, additional soil exploration should be conducted upgradient and downgradient of the site.</p>	<p>The past disposal activities at Site 2 consisted of dumping construction and demolition debris. The wastes included asphalt, wood, tires, and furniture (Site 2 is commonly referred to as the wood dump). Further, the downgradient BAT sample did not identify any contamination emanating from this site. The Navy feels that further site explorations are not warranted.</p>

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Comment Number	Comment	Response
<u>Site 3</u>		
14.	In order to define the horizontal and vertical extent of the contamination in the aquifer, the following wells should be installed: 1. An upgradient well directly north of WHF-3-2, 2. A water table well approximately 40' west of WHF-3-2D, 3. A downgradient water table well approximately 20' south of the Pumping Station, and 4. A water table well approximately 80' south of WHF-3-CPT-1.	If the proposed monitoring well installation program at Site 3 does not define the horizontal and vertical extent of contamination, additional monitoring wells may be installed during Phase II-B at these suggested locations.
<u>Site 5</u>		
15.	Please explain the specific rationale for the installation of monitoring wells WHF-5-8S and 8D. They are nine hundred feet north of site.	Wells WHF-5-8S and 8D are part of a series of fenced well clusters upgradient of the south production well W-S2. These wells will provide information on the potential source of the benzene contamination detected in the south production well. The wells have been placed between the production well and the former 250,000 gallon fuel tank area, the vehicle maintenance area, and the northwest portion of the industrial area.
	Will the Sampling in Phase II include a report on the most recent sampling results for the Geraghty & Miller installed wells as well as well W-S2?	Results of the Phase II-A groundwater sampling episode will include sampling of all existing and newly installed monitoring wells (including production well W-S2). The results will be included in the groundwater assessment technical memorandum.

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Comment Number	Comment	Response
<u>Site 12</u>		
16.	<p>The proposed NFA at this site is premature. Monitoring wells WHF-12-1 and WHF-CPT-1 are lateral to the groundwater flow, therefore, a water table well should be installed directly downgradient of the site.</p> <p>pp 138 of RI/FS Planning Document. Volume I of III Workplan. June of 1990, identifies the groundwater flow in this site as mainly due South-Southeast however, CPT-BAT samples were located due east of the site lateral to the already known groundwater flow. Explain the rationale for obtaining soil and groundwater samples lateral to the known groundwater flow.</p>	<p>Although monitoring well WHF-12-1 and WHF-CPT-12-1 are lateral of Site 12 they are only 10 feet east of the site boundary and one would expect to see contaminants that have dispersed laterally with the infiltration of rain water over the 70 feet to the water table. No monitoring wells have been installed downgradient of Site 12 due to the presence of a large ravine located directly downgradient of the site. No contaminants exceeding the State or Federal MCLs were detected in any groundwater sample. In addition the waste piles, reportedly containing tetraethyl lead in the waste sludge, were extensively sampled and the results indicate that the concentrations of lead were below or slightly above the background concentrations in the local soil.</p> <p>The lack of elevated levels of lead contamination does indicate that further investigation at Site 12 is not warranted.</p>
<u>Site 13</u>		
17.	<p>The installation of a water table monitoring well about halfway between WHF-11-1 and WHF-13-1 is warranted due to the extent of the landfill and the lack of groundwater investigation in that portion of the site.</p>	<p>Monitoring well WHF-11-3 has been proposed for installation downgradient of Site 11 (between Site 11 and Site 13) and will provide groundwater quality data for the area the reviewer is citing. See attached figure (Figure 7-8 from Technical Memorandum No. 6).</p>
<u>Site 16</u>		
18.	<p>Groundwater BAT sample WHF-CPT-1 showed Benzene at 400 ug/l; however, no wells have been planned downgradient of such sample. The installation of a monitoring well downgradient of WHF-CPT-1 is warranted to accurately define the horizontal and vertical extent of benzene in that portion of the aquifer.</p>	<p>Since the BAT groundwater sampling methodology is a screening tool, a monitoring well will be installed at WHF-16-CPT-1 to confirm the detection of the benzene. Based on this data additional monitoring wells may be required to be installed downgradient of this location to adequately characterize the extent of contamination.</p>

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<u>Site 17</u>		
19.	<p>pp 7-37. The text implies that soil samples will either be composited from 0 to 5 feet below land surface (bls) or that a discrete soil sample will be taken at 5 foot intervals. Either of these procedures is unacceptable. Given the surficial lithology present throughout the installation and further described by the consultant, soil samples should be obtained from 0 to 2 feet and every 2 feet up to 10 feet bls and then every 5 feet to either the water table or as proposed by the consultant, an approved depth.</p> <p>pp 7-35. The figure presented for this site is very general and leaves the reviewer wondering where the exact locations of the fire training pits are. Without a detailed figure, it is difficult to get an idea of the additional work proposed.</p>	<p>The soil samples between 0 and 5 feet will not be composited. Soil samples will be collected at 5-foot intervals to a depth of 5 feet beyond where no apparent contamination exists based on visual examination and OVA screening.</p> <p>The collection of 2-foot long split-spoon samples at 5-foot intervals in conjunction with the OVA screening and laboratory analysis will provide adequate delineation of the vertical extent of contamination.</p> <p>A figure showing the pit, waste pile and sample locations will be prepared for the Phase II-A Technical Memoranda.</p>
<u>Site 18</u>		
20.	pp 7-39. Please refer to both comments for the previous site.	Please refer to Response 19.
<u>Site 29</u>		
21.	pp 7-42. Please refer to comments issued for Site 17.	Please refer to Response 19.
<u>Site 30</u>		
22.	Please provide a site specific figure. Figure 7-2 shows the location of the waste oil tanks to be investigated, however, the figure points out a rectangular feature indicating the actual placement of the waste oil tanks.	A detailed site figure showing the tank and exploration locations will be prepared for the Phase II-A Technical Memoranda.