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March 15, 1995

Commanding Officer  
Attn: Jeff Drummond/0233JD  
SOUTHNAVFACENCOM  
2155 Eagle Drive  
North Charleston, SC 29418

RE: Revised *Assembly B Site Investigation Plans* and Response to Comments, NAS Memphis  
RCRA Facility Investigation, Millington, Tennessee; Contract N62467-89-D-0318,  
Comprehensive Long-Term Environmental Action Navy (CLEAN); CTO-094

Dear Sir:

EnSafe/Allen & Hoshall is pleased to submit two copies of the revised *Assembly B Site Investigation Plans* for NAS Memphis. Responses to USEPA and TDEC comments on the draft version of the document are attached. As requested, copies of the document have been distributed as indicated on the enclosed NAS Memphis Distribution List.

If you have any questions or comments, please contact me at 901/372-7962.

Sincerely,

EnSafe/Allen & Hoshall

By: Lawson M. Anderson, CHMM  
Task Order Manager

Enclosures

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**Document Title:** *Assembly B Site Investigation Plans (Revision 1), Naval Air Station Memphis, Millington, Tennessee*  
**Document Date:** March 15, 1995  
**Distribution Date:** March 15, 1995

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| TDEC—Division of Superfund<br>Memphis Field Office<br>Attn: Jordan English<br>Suite E-645, Perimeter Park<br>2500 Mt. Moriah<br>Memphis, TN 38115-1511<br>(901) 543-6695                          | Courier       | Jordan English<br>Jim Morrison  | <u>1</u><br><u>1</u>             |
| TDEC—Division of Superfund<br>Attn: Clint Willer<br>4th Floor, L & C Annex<br>401 Church Street<br>Nashville, TN 37243-1538<br>(615) 741-5940   | 2nd Day—F/Ex  | Clint Willer  | <u>1</u>                         |
| U.S. Geological Survey<br>Water Resources Division<br>Attn: Jack Carmichael<br>810 Broadway, Suite 500<br>Nashville, TN 37203<br>(615) 736-5424, Ext.3137   | 2nd Day—F/Ex  | Jack Carmichael   | <u>1</u>                         |
| Memphis and Shelby Co. Health Dept.<br>Attn: Brenda Duggar<br>814 Jefferson Avenue<br>Memphis, TN 38105<br>(901) 576-7741   | Courier       | Brenda Duggar   | <u>1</u>                         |

**NAS Memphis RFI**  
**Assembly B Site Investigation Plans**  
**Response to Comments by Waste Management Division, USEPA, Region IV**

1. SWMUs 4 and 6 should be adequately delineated on Figure 1.

Response: *SWMUs 4 and 6 have been identified on Figure 1 in Section 2 of the SWMU 40 Site Investigation Plan.*

2. Will discharges from SWMU 38, south side, contaminate the north side SWMU 38 after the Assembly B investigation?

Response: *On the Southside, SWMU 38 flows directly into Big Creek Drainage Canal. On the Northside, SWMU 38 flows into North Fork Creek, a tributary of Big Creek Drainage Canal. Therefore, Southside SWMU 38 will not contaminate Northside SMWU 38.*

3. Section 4.4, Expansion of Investigation

The determination to expand the investigation should be made by a combination of the results from the shallow soil (0 - 6") investigation for contaminants above background and then consideration of the detection of the contaminants above PRGs. Also, a determination needs to be made as to the average rate of sedimentation, so that 0" -6" sampling would be of sufficient depth.

Response: *The above comment has been addressed and text revised accordingly. Additional samples have been proposed for the 18"-24" depth interval in seven locations near areas of standing water or outfalls. Additional locations for deeper sampling may be selected during the investigation based on field observations.*

4. Section 5.0, Potential Receptors

Please elaborate on the areas and pathways that potential receptors would be exposed. For instance, a brief description of the areas fishing occurs and the approximate amount of fish consumed. Additionally, please briefly describe potential pathways that livestock would be exposed.

Response: *The text has been revised as follows: "The SWMUs addressed in this investigation transect the southern part of NAS Memphis Northside. All of the sites are related to drainage ways which are located in populated areas of the base; therefore, the potential exists for contact by base personnel. Off base, the potential exists for contact by the general public due to unrestricted access to the drainage ways. According to base personnel, no fishing or swimming occurs in North Fork Creek or Big Creek, but children may play near these drainage ways." In a subsequent telephone conversation, Mr. Richard Sullivan of the Memphis District, U.S. Army*

*Corps of Engineers also stated that North Fork and Big Creeks are not used for swimming, fishing, or livestock watering in the vicinity of Millington and NAS Memphis.*

5. Figure B-2, Site Map

Please label SWMU 4.

Response: *The figure has been revised as requested.*

**NAS Memphis RFI**  
**Assembly B Site Investigation Plans**  
**Response to Comments by TDEC, Division of Superfund**

**Section 1 -- General Comments:**

1. Speculative phrases and statements at this stage of the RI are inappropriate and should be deleted. (e.g. — the presence of TPH in the sediment could be attributable to ongoing training activities at these facilities.)

Response: *The text has been revised as requested.*

2. Given the following facts:
  1. There are documented historical releases into these ditches.
  2. Some of the contaminants released are volatile and are very mobile in the substrate.
  3. These ditches are now and have received copious amounts of surface water runoff (i.e. — they are wet weather conveyances.)

It is TDEC's opinion that the sampling strategy proposed here is insufficient. Surface soil/sediment samples are adequate only for soil exposure potential and for attribution to surface water contamination. This sampling strategy does not address the potential for migration of historically released contaminants to ground water. TDEC suggests that bias selected deeper soil/sediment samples be obtained along with surface soil/sediment samples, not as a consequence of detecting them only in surface samples.

Response: *The above comments have been addressed in the SIP by proposing the collection of additional, deeper samples. Seven soil/sediment samples will be collected at an approximate depth of 18 to 24 inches below land surface and analyzed for FSA. These seven locations were chosen based on the presence of standing water and/or outfalls. Additional locations for deeper sampling may be selected during the investigation based on field observations.*

**Section 1 — Specific Comments**

1. Subsection 3.3, SWMU 10 — Northside Landfill, Eastern Portion, pg. 9. Please elaborate as to the types of ashes referred to in the parentheses.

Response: *The text has been revised to read "ash associated with paper incineration".*

2. Subsection 4.3.1, Sediment/soil Sampling pg. 15.  
Add a sentence that states that deviation from proposed sampling rationale will be documented.

Response: The text has been revised as requested.

**Section 2 — Specific Comments:**

1. Subsection 4.3, Objectives of Proposed Field Investigation, pg. 13.  
As evidenced at SWMU 7, can DPT reliably and/or definitively rule out the presence of solvent type contamination? TDEC suggests rethinking this assumption as the sole basis for defining sampling parameters.

Response: Followup conversations with NAS Memphis Public Works Office personnel confirm site background information provided in previous reports. SWMU 40 was used for storage of scrap metal, vehicles, and machinery. Solvents were not used or stored at this site; however, some of the equipment stored at the site contained petroleum products (e.g., fuel or oil) that could have leaked onto the ground surface.

*The proposed DPT survey will provide laboratory-quality analysis of numerous soil and groundwater samples collected over a large area of the site. These test results, in conjunction with the historical usage of the site (i.e., solvents were not used at the site), provide a basis for a decision to concentrate on assessing petroleum-related contamination at the site.*

2. Subsection 4.3.2, Soil Boring/Monitoring Well Phase, pg. 17. See specific comment 1 of this section.

Response: Refer to preceding response.

3. Subsection 4.4, Expansion of Investigation, pg 19.  
See general comment 2 under Section 1. Also, please elaborate on and clarify the sentence "If physical evidence of contamination is observed...". Physical evidence of contaminants at ppm and ppb is hard to see. Did you mean analytical evidence?

Response: The following sentences have been added or revised in Subsection 4.4: "Deviations from proposed sampling rationale will be recorded in the field log book. If physical evidence of contamination (i.e., visual and olfactory observations and elevated organic vapor field screening readings) is observed below the first-encountered groundwater in any sampling point, a soil sample may be collected; otherwise, no soil samples will be collected from below the water level for laboratory analysis."

4. Subsection 5.5, Potential Receptors, page 23.  
This comment is in reference to general comment 2 under Section 1. There is no mention of potential receptors via ground water pathway.

Response: The following sentences have been revised or added to Subsection 5.5: "SWMU 40 is related to drainage ways which are located in populated areas of the base; therefore, the

*potential exists for contact by base personnel. Off base, the potential exists for contact by the general public due to unrestricted access to the drainage ways. According to base personnel, no fishing or swimming occurs in North Fork Creek or Big Creek, but children may play near these drainage ways.*

*Other potential receptors include two production wells (Production Well 1 and Production Well 2). Production Well 1 is approximately 1,500 feet northeast of SWMU 40. Production Well 2 is approximately 2,500 feet northeast of SWMU 40. However, these wells are screened in the Memphis Sand with the Cook Mountain confining unit above the screened intervals. A more detailed analysis of potential receptors will be conducted and presented in the RFI report if contamination is found at SWMU 40."*