

M00263.AR.000123  
MCRD PARRIS ISLAND  
5090.3a

LETTER OF TRANSMITTAL FOR DRAFT ADDENDUM 1 TO RESOURCE CONSERVATION  
AND RECOVERY ACT FACILITY INVESTIGATION WORK PLAN FOR SITE 1 INCINERATOR  
LANDFILL WITH ATTACHMENT MCRD PARRIS ISLAND SC

11/3/1998  
TETRA TECH NUS


**TETRA TECH NUS, INC.**

661 Andersen Drive ■ Pittsburgh, Pennsylvania 15220-2745  
 (412) 921-7090 ■ FAX (412) 921-4040 ■ www.tetrattech.com

PITT-11-8-125

November 13, 1998

Project Number 7394

Commanding Officer  
 Department of Navy  
 SOUTHNAVFACENGCOM  
 ATTN: Mr. Arthur Sanford (Code 1862)  
 PO Box 190010  
 North Charleston, South Carolina 29419-9010

Reference: CLEAN Contract No. N62467-94-D-0888  
 Contract Task Order No. 0020

Subject: Draft Addendum 1 to Site/SWMU 1 RFI Work Plan  
 MCRD Parris Island, South Carolina

Dear Mr. Sanford:

Please find enclosed two copies of the subject plan. This plan was developed based on discussions during the October 21, 1998 Partnering Team meeting held at MCRD Parris Island. This plan is being submitted to the Partnering Team for review and comment. To maintain our current schedule, we are requesting comments from the Partnering Team by November 25, 1998.

If you have any questions or require additional information, please call me at (412) 921-8375.

Sincerely

David D. Brayack, PE  
 Task Order Manager

cc: T. Dillon, NOAA (1 copy)  
 D. Duncan, US F&W (1 copy)  
 D. Evans-Ripley, SOUTHDIV (w/o enclosure)  
 D. Hargrove, SCDHEC (1 copy)  
 T. Harrington, NREAO - MCRD PI (1 copy)  
 K. Lapierre, USEPA (2 copies)  
 M. Perry, TtNUS (1 copy)  
 S. Peterson, SCDHEC (1 copy)  
 D. Wroblewski, TtNUS (w/o enclosure)  
 P. Wendt, SCDNR (1 copy)

**ADDENDUM 1**  
**TO**  
**RCRA FACILITY INVESTIGATION/  
REMEDIAL INVESTIGATION WORK PLAN  
FOR SITE/SWMU 1 – INCINERATOR LANDFILL  
MCRD PARRIS ISLAND, SOUTH CAROLINA**

**OBJECTIVE:** The objective of this addendum is to identify field work needed to better delineate the horizontal extent of chemicals of potential concern in sediments at Site/SWMU 1.

**BACKGROUND:** The intent of the original sediment investigation was to determine whether site chemicals have adversely impacted adjacent sediments. Based on a preliminary evaluation of sediment data collected in 1998, metals consistent with landfilling operations have been detected at concentrations exceeding potential human health and ecological screening levels in the adjacent sediments. Therefore, the horizontal extent of metal contamination has not been adequately defined.

In addition, pesticides and polynuclear aromatic hydrocarbons (PAHs) have been detected in the same sediments at concentrations that exceed human health and/or ecological screening values. These chemicals may be associated with Site 1 waste disposal activities. However, based on the prevalence of these chemicals throughout the area, these chemicals may also be associated with commercial application of these chemicals for beneficial use at the facility.

Carbon disulfide was detected in several sample locations, but with a maximum concentration of 18 ug/kg. Based on the frequency of detection, relatively low detected concentrations relative to the screening level (13 ug/kg), and chemical volatility, additional testing for VOCs is not proposed.

**SAMPLING PLAN:** To address the objectives described above, 5 sediment samples (plus 1 duplicate) and 2 surface soil samples will be collected. The sediment samples will be collected at a distance of approximately 200 to 400 feet beyond the approximate high water shoreline and the soil samples will be collected in the picnic area south and west of Site 1, (See Figure 1).

The intent of the sediment sampling effort is to identify the maximum horizontal extent of potential sediment contamination. To help identify these locations in the field, the sampling team will start at the high water shoreline at Site 1 and walk directly outward toward one of the sample points. Every 50 feet, the team will hand auger 6 to 12 inches, (and deeper if ash is encountered), into the sediments looking for visual evidence of incinerator ash. If the ash is observed, the thickness of the ash will be recorded, and the team will then move out an additional 50 feet. The samples will be collected at the first location where ash is not observed. However, the field samples for chemical testing will be collected a minimum of 200 feet from the high water shoreline. Five sediment plus one duplicate sample will be collected and analyzed for PAHs (using HPLC), pesticides, and TAL metals.

Two soil samples will be collected in the picnic area within approximately 50 feet of a road and near a tree line. These locations represent areas that would normally be treated with pesticides at the facility. Also, if PAHs are found that are associated with road base material or dust control, then similar or higher PAH concentrations may be encountered at these locations. With the exception of the area nearest Site 1, this picnic area is not associated with any SWMUs or IR sites.

Specific addendum's to tables in the work plan are attached. These tables include the following.

Table 4-1 - Investigation Rationale Addendum

Table 4-3 – Investigation Summary Addendum

Table 7-1 – Summary of Environmental Sampling Addendum

All other aspects of the work plan will be followed.

**TABLE 4-1**  
**INVESTIGATION RATIONALE ADDENDUM**  
**SITE/SWMU 1 – INCINERATOR LANDFILL**  
**MCRD PARRIS ISLAND**

<b>Media</b>	<b>Identified/Suspected Contaminants</b>	<b>Preliminary Assessment</b>	<b>Data Gaps/Needs</b>	<b>Resolution of Data Gaps/Needs</b>
Sediment	PAHs, metals, pesticides	Data indicates that these compounds may have migrated from the fill into the adjacent sediment.	<ul style="list-style-type: none"> <li>• Further define the extent of potential sediment contamination.</li> </ul>	<ul style="list-style-type: none"> <li>• TAL metals, PAHs, pesticides.</li> </ul>
Surface Soil	PAHs, pesticides	PAHs, and pesticides may be present in the area from non-site sources.	<ul style="list-style-type: none"> <li>• Determine if PAHs and pesticides are common in the area.</li> </ul>	<ul style="list-style-type: none"> <li>• PAHs and pesticides.</li> </ul>

TABLE 4-3

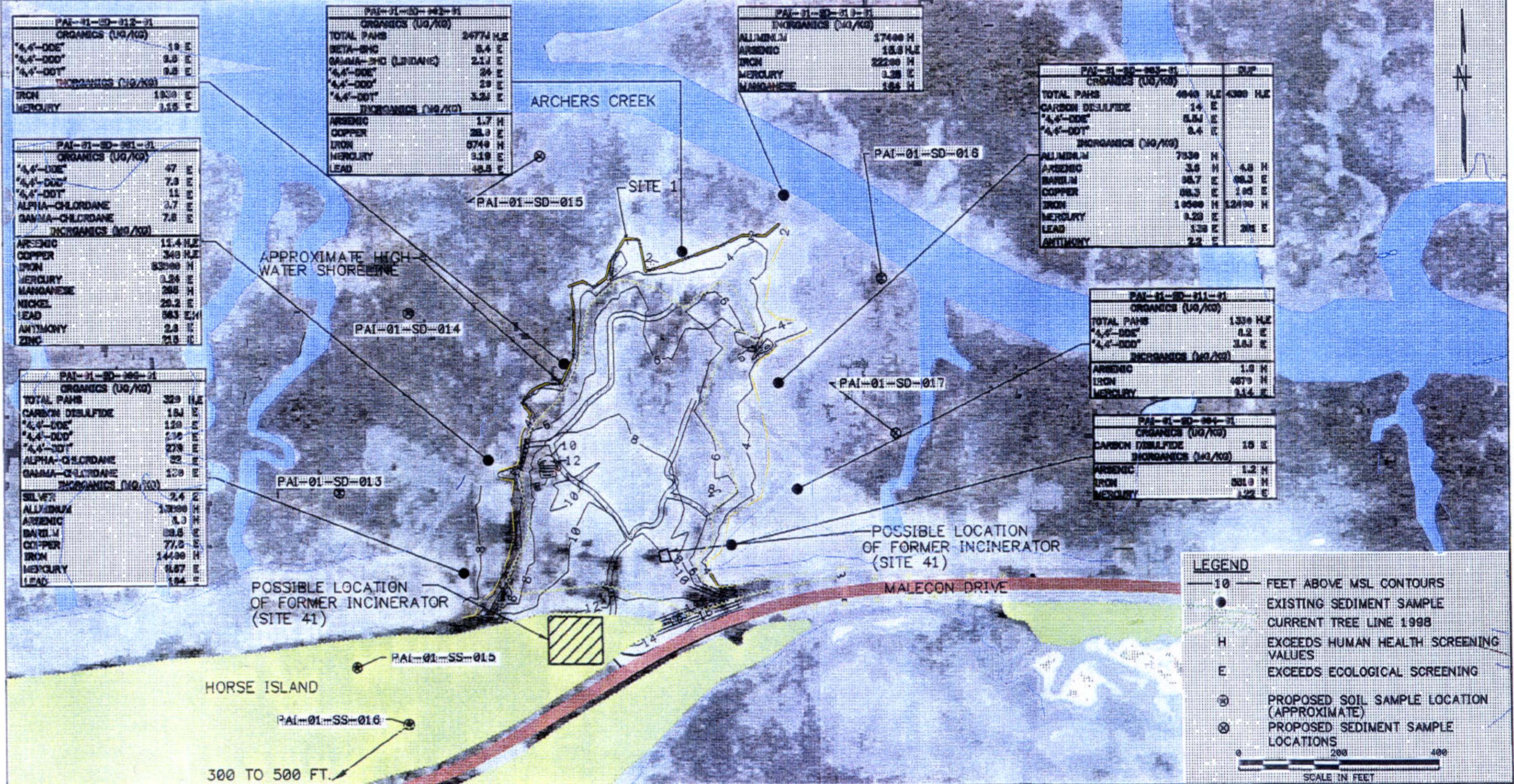
**INVESTIGATION SUMMARY ADDENDUM  
SITE/SWMU 1 – INCINERATOR LANDFILL  
MCRD PARRIS ISLAND**

<b>Media</b>	<b>Data Gap/Need</b>	<b>Investigation Activity</b>	<b>Number of Locations</b>	<b>Samples per Location</b>	<b>Analysis</b>
Sediment	<ul style="list-style-type: none"> <li>TAL metals, PAHs, and pesticides.</li> </ul>	Collect sediment samples.	5	1	TCL pesticides PAHs TAL metals
Surface Soil	<ul style="list-style-type: none"> <li>PAHs and pesticides.</li> </ul>	Collect surface soil samples.	2	1	TCL pesticides PAHs

TABLE 7-1

**SUMMARY OF ENVIRONMENTAL SAMPLING ADDENDUM  
SITE/SWMU 1 – INCINERATOR LANDFILL  
MCRD PARRIS ISLAND**

Sample Location	Sample Designation	Sample Depth (feet below ground surface)	Sample Analysis		
			PAHs	TAL Metals	TCL pesticides
PAI-01-SD-13	PAI-01-SD-013	0 to 0.5	•	•	•
PAI-01-SD-13	PAI-01-SD-013-D	0 to 0.5	•	•	•
PAI-01-SD-14	PAI-01-SD-014	0 to 0.5	•	•	•
PAI-01-SD-15	PAI-01-SD-015	0 to 0.5	•	•	•
PAI-01-SD-16	PAI-01-SD-016	0 to 0.5	•	•	•
PAI-01-SD-17	PAI-01-SD-017	0 to 0.5	•	•	•
PAI-01-SS-15	PAI-01-SS-015	0 to 1	•		•
PAI-01-SS-16	PAI-01-SS-016	0 to 1	•		•



NO.	DATE	REVISIONS	BY	CHKD	APPD	REFERENCES

DRAWN BY HJP DATE 11/9/98  
CHECKED BY DATE  
COST/SCHED-AREA  
SCALE AS NOTED



PROPOSED SEDIMENT & SOIL SAMPLE LOCATION  
SITE 1-INCINERATOR LANDFILL AND SITE 41-FORMER INCINERATOR  
MCRD PARRIS ISLAND, SOUTH CAROLINA

CONTRACT NO. 7540	
APPROVED BY	DATE
APPROVED BY	DATE
DRAWING NO. FIGURE 1	REV. 0

**DRAFT**