

N61165.AR.004026
CNC CHARLESTON
5090.3a

CORRECTIVE ACTION PLAN FOR SOLID WASTE MANAGEMENT UNIT 178 (SWMU178)
ZONE H WITH TRANSMITTAL CNC CHARLESTON SC
3/1/2001
J A JONES ENVIRONMENTAL SERVICES

**CORRECTIVE ACTION PLAN
FOR
SWMU 178, ZONE H**

**Charleston Naval Complex
Charleston, South Carolina**

**SOUTHERN DIVISION
NAVAL FACILITIES ENGINEERING COMMAND**

Contract Number N62467-99-C-0960

March 2001

**CORRECTIVE ACTION PLAN
FOR
SWMU 178, ZONE H**

**Charleston Naval Complex
Charleston, South Carolina**

**Submitted to:
Southern Division
Naval Facilities Engineering Command
2155 Eagle Drive
Charleston, South Carolina 29406**

**Submitted by:
CH2M-JONES, LLC.
115 Perimeter Center Place NE
Suite 700
Atlanta, Georgia 30346-1278**



Contract Number: N62467-99-C-0960

March 2001

CERTIFICATION

I certify that the information contained in this report is true, and complete to the best of my knowledge, information, and belief.

Approved By: _____

P. C. Swain

Date: _____

3/22/01

South Carolina Registration No. _____

14220

ACRONYMS

AFVR	Aggressive Fluid - Vapor Recovery
bls	below land surface
BTEX	benzene, toluene, ethylbenzene and xylenes
BRAC	Defense Base Realignment and Closure Act
CAP	Corrective Action Plan
CNC	Charleston Naval Complex
CoC	Chemical of Concern
CSAP	Comprehensive Sampling and Analysis Plan
DOT	Department of Transportation
EISOPQAM	Environmental Investigations Standard Operating Procedures and Quality Assurance Manual
EPA	Environmental Protection Agency
ft bls	feet below land surface
mg/kg	microgram per kilogram
mg/L	microgram per liter
OVA	Organic Vapor Analyzer
PAHs	Polyaromatic Hydrocarbons
PCB	Polychlorinated Biphenyls
PVC	polyvinyl chloride
QA	Quality Assurance
QC	Quality Control
RA	Rapid Assessment
RAR	Rapid Assessment Report
RBSL	Risk-Based Screening Level
RCRA	Resource Conservation Recovery Act
SCDHEC	South Carolina Department of Health and Environmental Control
SOUTHDIV	Southern Division Naval Facilities Engineering Command
SSTL	Site-Specific Target Level
SWMU	Solid Waste Management Unit
TTNUS	Tetra Tech NUS
UST	Underground Storage Tank

TABLE OF CONTENTS

Section	Page
CERIFICATION.....	ii
ACRONYMS.....	iii
TABLE OF CONTENTS	iv
1.0 INTRODUCTION.....	1-1
1.1 General Site Description.....	1-1
1.2 Site Background.....	1-1
2.0 FINAL RCRA FACILITY INVESTIGATION REPORT.....	2-1
2.1 Assessment Information.....	2-1
2.2 Soil Analytical Results.....	2-1
2.3 Groundwater Analytical Results.....	2-2
3.0 PROPOSED SAMPLING SCHEDULE	3-1
3.1 Surveying	3-1
3.2 Soil Boring Schedule	3-1
3.3 Monitoring Well Abandonment.....	3-1
3.4 Sampling and Analysis Plan	3-1
3.5 Reporting.....	3-2
4.0 PROPOSED CORRECTIVE ACTION.....	4-1
4-1 Soil Remediation	4-1
4-2 Groundwater Remediation.....	4-1
5.0 PROPOSED ACTIVE REMEDIATION.....	5-1
5.1 Soil Removal	5-1
5.2 Monitoring Well Instillation	5-1
5.3 Surveying	5-1
5.4 Soil Boring Schedule	5-1
5.5 System Operation and Maintenance	5-1
5.6 Sampling and Analysis Plan for Active Remediation.....	5-2
5.7 Reporting.....	5-2
5.8 Equipment Decontamination	5-2
5.9 Sample Handling.....	5-2
5.10 Quality Control	5-2
6.0 SITE MANAGEMENT AND BASE SUPPORT	6-1
7.0 REFERENCES.....	7-1

8.0 FIGURES

- 1 SITE LOCATION MAP
- 2 SITE VICINITY MAP
- 3 SITE MAP AND SAMPLING LOCATIONS
- 4 SITE MAP AND DELINEATING SAMPLING LOCATIONS

9.0 APPENDIX

- 1 SCDHEC LETTER DATED 09-04-96

1.0 INTRODUCTION

This Corrective Action Plan (CAP) has been prepared by CH2M-JONES, LLC. The plan is designed for SWMU (Solid Waste Management Unit) 178, Zone H; located at the Charleston Naval Complex (CNC), Charleston, South Carolina. The South Carolina Department of Health and Environmental Control (SCDHEC) has designated this site as Identification Number: N/A.

This CAP provides a method for active remediation of the site by first re-sampling the areas that have shown to have contaminants of concern (COCs) above the RBSLs, if the analytical from the re-sample shows contamination still exists at the site, excavation may be used as a active remediation.

1.1 General Site Description

The CNC is located in the city of North Charleston, on the west bank of the Cooper River in Charleston County, South Carolina (**Figure 1**). This installation consists of two major areas: an undeveloped dredge materials area on the east bank of the Cooper River on Daniel Island in Berkley County, and a developed area on the west bank of the Cooper River. The developed portion of the base is on the peninsula bounded on the west by the Ashley River and on the east by the Cooper River. The site is located within the developed portion of the base (**Figure 2**).

The area surrounding CNC is “mature urban”, having long been developed with commercial, industrial, and residential land use. Commercial areas are primarily west of CNC; industrial areas are primarily to the north of the base along Shipyard Creek. A site vicinity map, which exhibits adjacent properties and structures, vicinity roads, current utilities, and vicinity surface drainage, is included as **Figure 2**.

1.2 Site Background

The CNC began operations in 1901, when the Navy acquired the property. In 1993, the CNC was added to the list of bases schedule for closure under the Defense Base Realignment and Closure Act (BRAC). BRAC regulates the closure of the base and transition of the property back to the community. With the scheduled closure of the base, environmental cleanup has proceeded to make the property available for redevelopment after closure.

SWMU 178 is the site of a transformer-oil leak from an underground transformer vault approximately 50 feet south of Building X33-A. The leak was identified in 1994. Soil and groundwater were sampled to investigate any residual contamination from the previous oil leak and other possible spills or leaks. No Polychlorinated Biphenyls (PCBs) were found at site SWMU 178 according to the RCRA Facility Investigation Report conducted by TTNUS in June, 1997. Only petroleum-based constituents were detected as discussed in Section 2.0 of this plan. A SCDHEC letter dated September 4, 1996 (see Appendix I), explains the decision to move Site SWMU 178 from RCRA to the UST program.

2.0 FINAL RCRA FACILITY INVESTIGATION REPORT

A Final RCRA Facility Investigation Report was completed on July 5 1996, for SWMU 178, Zone H. The IR (investigation report) information was used to develop this CAP. The information from the IR is summarized in this section.

2.1 Assessment Information

Twelve soil samples were collected from two depth intervals (0 to 1 foot and 3 to 5 foot) near SWMU 178. The locations were sampled using hand augers.

All twelve samples were analyzed for VOCs, SVOCs, pesticides/PCBs, cyanide, metals, and TPH. One was split to serve as a QC duplicate, and additionally analyzed for herbicides, hexavalent chromium, dioxins, and organophosphate pesticides.

For groundwater monitoring, two shallow monitoring wells were installed near SWMU 178 for groundwater sampling. Samples were analyzed for VOCs, SVOCs, pesticides/PCBs, metals, cyanide, and TPH. Based on first round sample results, second-round samples were analyzed for SVOCs and metals.

2.2 Soil Analytical Results

All information below was obtained from the Final RCRA Facility Investigation Report (Zone H) from July 5, 1996.

Soil Boring No:	INTERVALS	VOCs	SVOCs	Pesticides/ PCBs	Inorganic Elements in Soil
178SB001	1 (0-1 ft)	Below RBSLs	Below RBSLs	Below RBSLs	Below RBSLs
178SB001	2 (3-5 ft)	Below RBSLs	Below RBSLs	Below RBSLs	Below RBSLs
178SB002	1 (0-1 ft)	Below RBSLs	Below RBSLs	Below RBSLs	Below RBSLs
178SB002	2 (3-5 ft)	Below RBSLs	di-n-octylphthalene= 226 ppb (RBSL= 160 ppb)	Below RBSLs	Thallium 2.2 ppb (RBSL= 0.63 ppb)
178SB003	1 (0-1 ft)	Below RBSLs	Below RBSLs	Below RBSLs	Below RBSLs
178SB003	2 (3-5 ft)	Below RBSLs	Below RBSLs	Below RBSLs	Below RBSLs
178SB004	1 (0-1 ft)	Below RBSLs	Below RBSLs	Below RBSLs	Below RBSLs
178SB004	2 (3-5 ft)	Below RBSLs	Below RBSLs	Below RBSLs	Below RBSLs
178SB005	1 (0-1 ft)	Below RBSLs	Benzo (a) pyrene= 140 ppb (RBSL= 88 ppb)	Below RBSLs	Below RBSLs
178SB005	2 (3-5 ft)	Below RBSLs	Below RBSLs	Below RBSLs	Below RBSLs

*BDL= Below Detection Limits.

** ND= Non-Detect

2.2 Groundwater Analytical Results

All information below was obtained from the Final RCRA Facility Investigation (Zone H) Report from July 5, 1996.

Groundwater First Round of Sampling

MW ID Number	VOCs	SVOCs	Pesticides/ PCBs	Petroleum Hydrocarbons	Inorganic Elements
NBCH178001	*ND	*ND	*ND	*ND	Manganese at 158.0 ppb
NBCH178002	*ND	*ND	*ND	*ND	*ND

*ND= Not Detected.

Groundwater Second Round of Sampling

MW ID Number	VOCs	SVOCs	Pesticides/ PCBs	Petroleum Hydrocarbons	Inorganic Elements
NBCH178001	**NS	BEHP 530 ppb (RBSL 4.8 ppb)	*ND	**NS	*ND
NBCH178002	**NS	*ND	*ND	**NS	Manganese at 19.75 ppb (RBSL= Arsenic at 4.9 ppb

*ND= Not Detected.

**NS= Not Sampled

3.0 PROPOSED SAMPLING SCHEDULE

The Facility Investigation Report indicated that sample results for soil samples 178SB002 and 178SB005, and groundwater sample NBCH178001 had COCs (PAHs) above the RBSLs. CH2M-JONES, LLC recommends that additional sampling be collected at those locations to verify and delineate any potential plumes. CH2M-JONES, LLC will resample soils at 178SB002 and 178SB005 and groundwater at monitoring well NBCH178001. If the analytical from the certified laboratory indicates that the soils and groundwater at SWMU 178 are below the RBSLs, CH2M-JONES, LLC will recommend intrinsic remediation or ask for a No Further Action (NFA). If concentrations are above the RBSLs active remediation will be implemented (see Section 4.0 of this plan).

3.1 Surveying

No new monitoring wells are scheduled to be installed as a part of the sampling in this section. Surveying of any new well locations will be conducted if warranted.

Soil Borings 178SB002 and 178SB005 will be surveyed in order to re-sample in those exact locations. All new soil boring locations will be surveyed as a part of this plan.

3.2 Soil Boring Schedule

The sampling schedule includes re-sampling the previous sample locations. Each soil boring collected will be screened in the field using a PID (Photo Ionization Detector). The samples will be collected in two-foot intervals; (first interval will be 0-1 foot, the second interval will be 3-5 foot) both intervals will be collected and analyzed by a certified laboratory. If those results are greater than the RBSLs, then additional sampling mentioned in the active remediation will be implemented (see Section 4.0).

3.3 Monitoring Well Abandonment

All monitoring wells will be abandoned upon receiving approval by SCDHEC. The wells will be abandoned following the South Carolina Well Standards and Regulations R.61-71. The well abandonment will include grouting wells, removing stick-ups and removing all guard posts. Any well casing and screen removed will be decontaminated and disposed of as general refuse.

3.4 Sampling and Analysis Plan

Initially one round of sampling will be collected at the site. The analytic results should indicate whether this site should be recommended as no further action or resume to active measures described in Section 4.0. Samples will be collected in two intervals, the first interval will be from 0 to 1 feet, and the second interval will be from 3 to 5 feet. All intervals collected will be screened in the field using a Photo Ionization Detector (PID) prior to submitting samples to the certified laboratory. Each interval will be collected and sent to a certified laboratory to be

analyzed for the following: BTEX using method 8260 and PAHs using method 8270.

All sampling procedures will be conducted in accordance with EPA EISOPQAM, and Ensafe/Allen & Hoshall, Comprehensive Sampling and Analysis Plan, 1996.

3.5 Reporting

A report will be submitted to SCDHEC following each sampling event. The reports will summarize and include copies of field and laboratory analytical data.

4.0 PROPOSED CORRECTIVE ACTION

The corrective actions recommended in this section will be implemented only if the sampling schedule (see Section 2.0) shows evidence that the soils at SWMU 178 are contaminated.

The proposed corrective action for this site is first to re-sample the soils in the area in order to delineate the contamination if any and excavate the soils in the contaminated area. Samples will be collected in a circular pattern approximately five (5) feet north, south, east, and west of the samples collected in the sampling schedule in Section 2.0 (see Figure 4 Section 8.0). Samples will be collected in two (2) intervals and screened in the field using a PID. The first intervals will be from 0 to 1 foot bls, and the second interval will be from 3 to 5 foot bls. Samples collected will be analyzed for BTEX using method 8260 and PAHs using method 8270. If the site contains levels of any COCs above the RBSLs then soil removal will be considered as a corrective action. However, if COCs are below the RBSLs, intrinsic remediation or No Further Action may be recommended for the site.

4.1 Soil Remediation

If the first round of sampling described in Section 2.0 indicates levels of COCs above RBSLs, CH2M-Jones, LLC plans on implementing excavation (soil removal) following the delineation at this site in order to remove contaminants from the soil. All past soil samples indicate levels of COCs above RBSLs at sample numbers 178SB005 and 178SB002. Both of these locations will be used as the source area when delineating the area. The two monitoring wells onsite NBCH178001 and NBCH178002 will be used after the excavation as monitoring locations. For excavation delineating boundaries see Figure 4 in Section 8.0.

4.2 Groundwater Remediation

Field screening and analytical results of groundwater sampling in the assessment indicates that the only monitoring well with COCs above the RBSLs is monitoring well NBCH178005. The intent of the corrective actions is to remove any sources and to monitor the monitoring wells until the contaminants are below the RBSLs.

5.0 PROPOSED ACTIVE REMEDIATION

Based on the results of the initial sampling plan mentioned in Section 2.0, a dig and haul approach may be performed at this site to remove the COCs if any are found. Until the source is removed no additional groundwater sampling will be conducted at this time. Additional soil samples will be collected prior to excavation in order to establish the contaminated area. After defining the clean boundaries, soils from approximately 2 to 8 ft bls at the former AST pit will be excavated (see Section 3.0 and 4.0 for delineation methods).

5.1 Soil Removal

The objective of this remediation effort is to remove all contaminated soils from the area. Several soil samples will be collected in two (2) intervals. The first intervals will be from 0 to 1 foot bls, and the second interval will be from 3 to 5 foot bls.

5.2 Monitoring Well Installation

No additional permanent monitoring wells are scheduled to be installed at site SWMU 178.

If any wells are unusable or new wells are warranted for any other reason, the wells will be installed to the same specification as existing monitoring wells unless site conditions change and warrant otherwise. The wells will be installed in accordance with South Carolina Well Standards and Regulations R.61-71. A utility locate will be completed prior to any well installation activities. Any necessary permits will be acquired prior to well installation activities.

5.3 Surveying

Surveying of any new well locations will be conducted as a part of this CAP, if warranted. All new soil borings collected will be surveyed as well.

5.4 Soil Boring Schedule

As a part of the intrinsic remediation, soil borings will be taken and collected around the former sample locations in order to delineate the contaminated area (see Section 2.0 and Section 3.0 for details).

5.5 System Operation and Maintenance

Other than the sampling events, no additional system operation and maintenance will be needed at this site.

5.6 Sampling and Analysis Plan for Active Remediation

Soil samples will be collected prior to any excavation. In order to delineate the areas, a minimum of eight soil samples will be collected and submitted to a certified laboratory for petroleum chemicals of concern as listed in Section IV of the *Underground Storage Assessment Guidelines for Permanent Closure and Change in Service*, SCDHEC; July, 1998.

All sampling procedures will be conducted in accordance with EPA Environmental Investigations Standard Operating Procedures and Quality Assurance Manual (EISOPQAM), 1996, and Ensafe/ Allen & Hoshall, Comprehensive Sampling and Analysis Plan, 1996.

5.7 Reporting

Reports will be submitted to SCDHEC following the sampling events. The reports will summarize and include copies of field and laboratory analytical data. Upon completion of active remediation, a Performance Evaluation Report will also be submitted to SCDHEC to summarize the remediation activities, evaluate the soil quality data, and provide recommendations for the site.

5.8 Equipment Decontamination

All drilling equipment, augers, well casing and screens, and soil and groundwater sampling equipment involved in field sampling activities will be decontaminated according to the EPA EISOPQAM.

5.9 Sample Handling

Sample handling will be conducted in accordance to the following references: EPA EISOPQAM, Code of Federal Regulations 136, 1990, and EPA Users Guide to Contract Laboratory Program, 1988. The following forms will be completed for packing/shipping process: sample labels, chain-of-custody labels, appropriate labels applied to shipping coolers, and chain-of-custody forms.

5.10 Quality Control

In addition to periodic calibration of field equipment and the completions of the appropriate documentation, quality control (QC) samples will be collected during sampling events. QC samples may include field blanks, field duplicates, and trip blanks. Definitions of each can be found below as described by the EPA EISOPQAM:

Field Blank: A sample collected using organic-free water, which has been run over/through sample collection equipment. These samples are used to determine if contaminants have been introduced by contact of the sample medium with sampling equipment.

- **Field Duplicates:** Two or more samples collected from a common source. The purpose of a duplicate sample is to estimate the variability of a given characteristic or contamination associated with a population.
- **Trip Blank:** A sample, which is prepared prior to the sampling event in the actual container and is stored with the investigative samples throughout the sampling event. They are often packaged for shipment with the other samples and submitted for analysis. At no time after their preparation are trip blanks to be opened before they reach the laboratory. Trip blanks are used to determine if samples were contaminated during storage and/or transportation back to the laboratory (a measure of sample handling variability resulting in positive bias in contaminant concentration). If samples are to be shipped, trip blanks are to be provided with each shipment but not for each cooler.

6.0 SITE MANAGEMENT AND BASE SUPPORT

Throughout the investigation activities, work on the CNC will be coordinated through SOUTHDIV and SCDHEC.

The primary contacts for each are as follows:

1. SOUTHDIV point of contact
Gabe Magwood
Southern Division Engineering Command
2155 Eagle Drive
North Charleston, SC 29406
(843) 820-7307
2. SOUTHDIV point of contact
Tony Hunt
Southern Division Engineering Command
2155 Eagle Drive
North Charleston, SC 29406
(843) 820-5525
3. SCDHEC point of contact
Michael Bishop
South Carolina Department of Health and Environmental Control
2600 Bull Street
Columbia, SC 29201
(843) 898-4300

7.0 REFERENCES

Comprehensive Sampling and Analysis Plan (Ensafe/ Allen & Hoshall. July 1996).

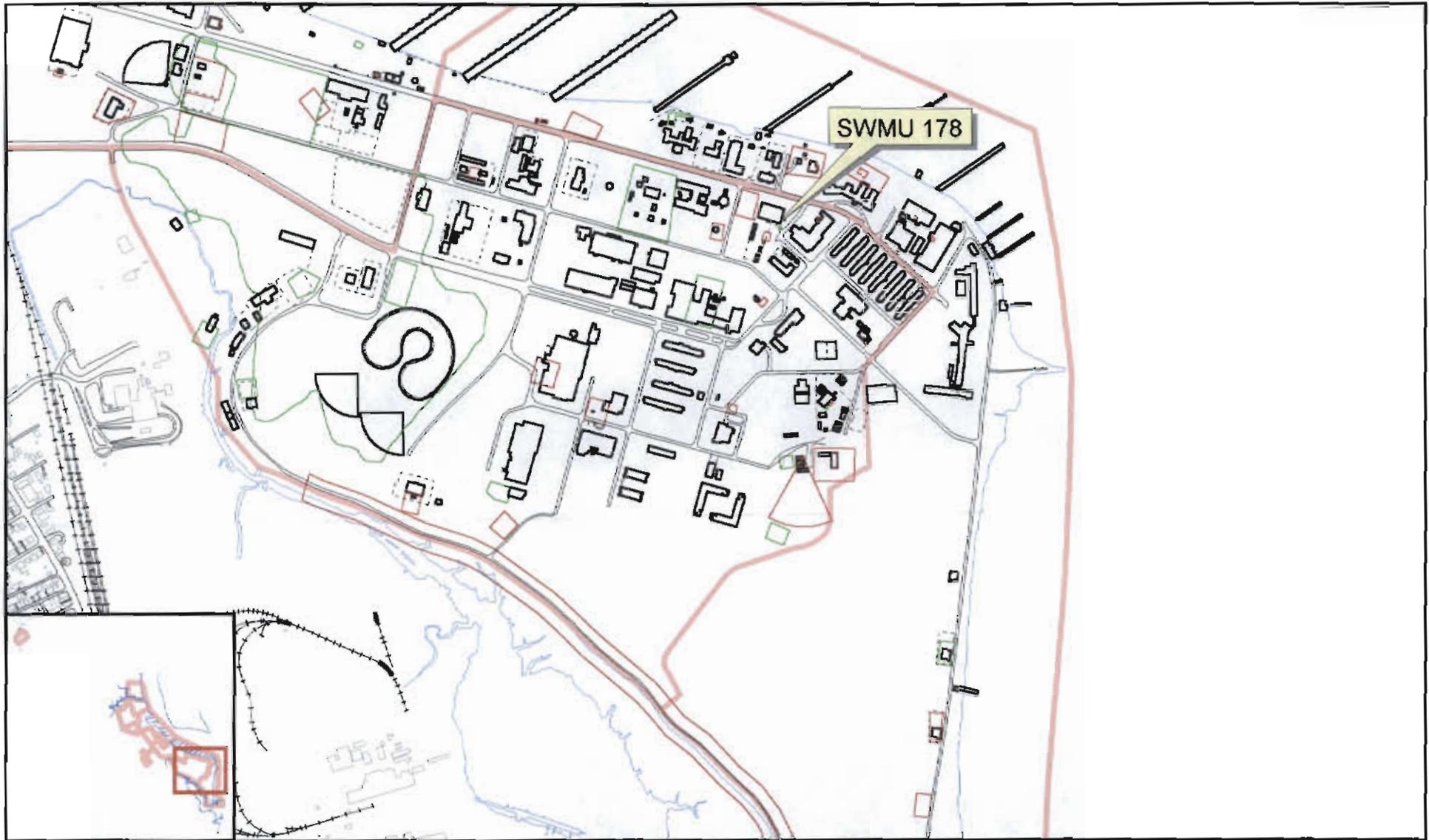
South Carolina Department of Health and Environmental Control. 1997. Corrective Action Guidance.

Tetra Tech NUS, Inc. July 1996. Final RCRA Facility Investigation Report for Zone H, Charleston, South Carolina.

United States Environmental Protection Agency. 1990. Code of Federal Regulations 136.

United States Environmental Protection Agency. 1996. EPA Environmental Investigations Standard Operating Procedures for Quality Assurance Manual.

FIGURES



- Surrounding Area
- Shoreline
- AOC Boundary
- SWMU Boundary
- Buildings
- Zone Boundary

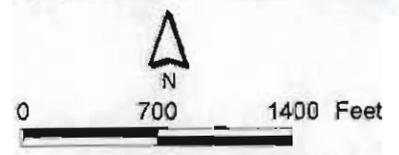


Figure 1
 Site Location Map
 SWMU 178
 Charleston Naval Complex

CH2MHILL

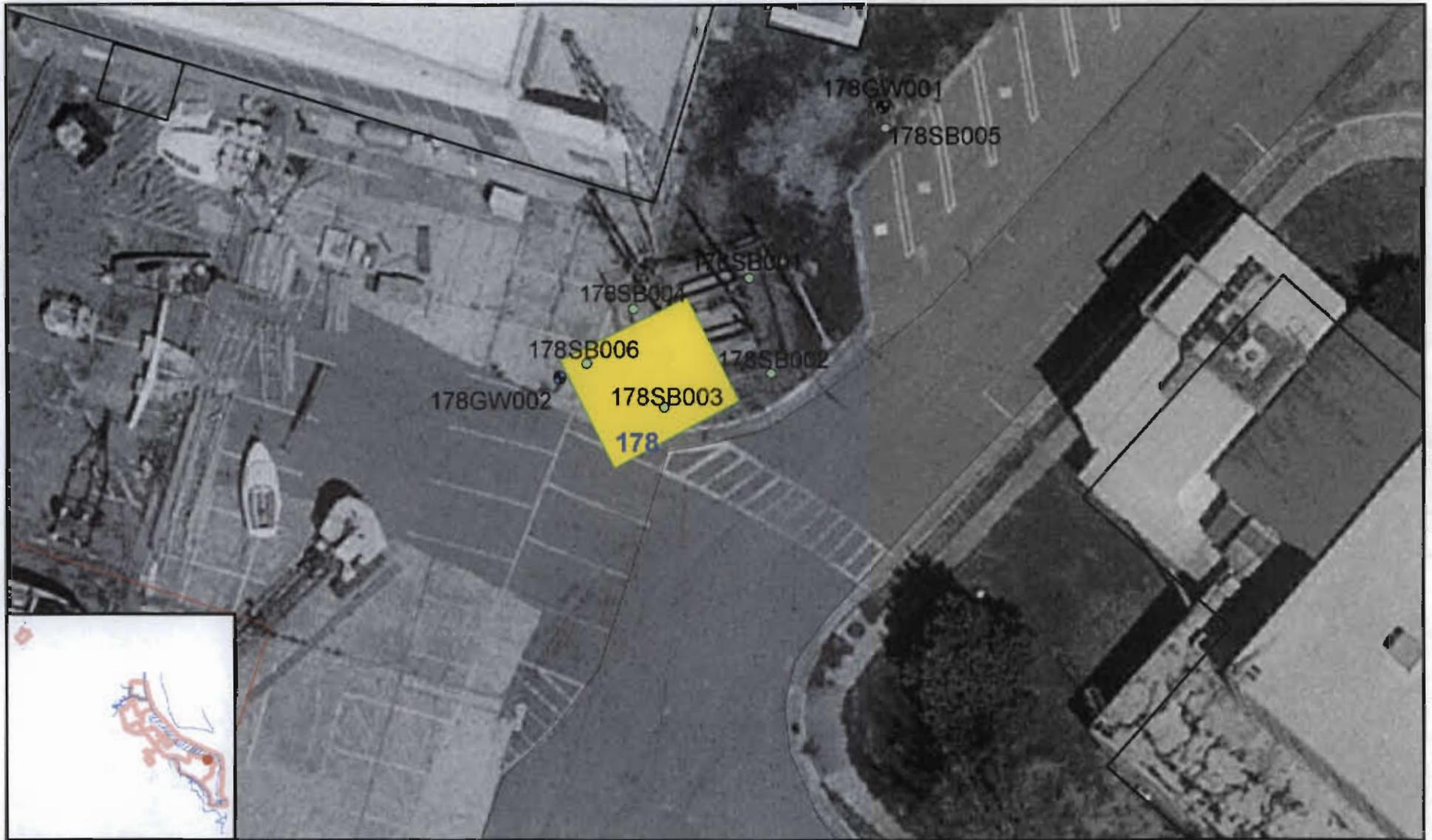


Figure 03
 Site Map and Sampling Locations
 SWMU 178
 Charleston Naval Complex

CH2MHILL



- ∩ DRAIN-LABEL
- ∩ DRAIN-BASIN
- ∩ DRAIN-LINE
- ∩ STORM-OUTFALL-ID
- ∩ STORM-LINE/MANHOLE
- ∩ STORM-LINE/MANHOLE-NS

- ∩ STORM-FLOW-ARROW
- ∩ SEWER-LINE/MANHOLE-NS
- ∩ SEWER-LINE/MANHOLE
- ∩ SEWER-FLOW-ARROW

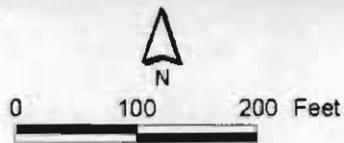


Figure 2
 Site Vicinity Map
 SWMU 178 (utility)
 Charleston Naval Complex

CH2MHILL



Figure 04
 Site Map and Delineating Sampling Locations
 SWMU 178
 Charleston Naval Complex

CH2MHILL

APPINDICES



Commissioner: Douglas E. Bryant

Board: John H. Burriss, Chairman
 William M. Hull, Jr., MD, Vice Chairman
 Roger Leaks, Jr., Secretary

Promoting Health, Protecting the Environment

Richard E. Jabbour, DDS
 Cyndi C. Mosteller
 Brian K. Smith
 Rodney L. Grandy

CERTIFIED MAIL
Return Receipt Requested

September 4, 1996

LCDR Paul Rose
 Officer in Charge, Caretaker Site Office
 Naval Facilities Engineering Command, Southern Division
 Building NH-45
 Charleston Naval Base
 Charleston, South Carolina 29408-2020

AOC 656

602, NS 71, 657

SWMU 178

NS 53

RE: Transferring sites from the RCRA Subtitle C
 to the RCRA Subtitle I Authority
 Charleston Naval Shipyard
 SCO 170 022 560

Dear LCDR Rose:

The Department is in receipt of your letter dated July 26, 1996 requesting to transfer SWMU 178 and AOC 656 from the RCRA Subtitle C to the RCRA Subtitle I authority. Information packages of both sites were included for review by the Department.

Based on the review of current available information of SWMU 178 and AOC 656 the Charleston Naval Base has shown that the petroleum contamination present at these two sites are most likely related to releases from tanks adjacent to these sites. Therefore this Section concurs with the CNB recommendation to investigate SWMU 178 and AOC 656 under the Department's Underground Storage Tank Program; further investigation at these sites should be coordinated with Mr. Paul Bristol of the Department's Groundwater Protection Division.

The transfer of SWMU 178 and AOC 656 from the RCRA Subtitle C to the RCRA Subtitle I authority, will require a permit modification by creating a new Appendix entitled *List of Solid Waste Management Units and Areas of Concern which require investigation and will be regulated under the Department's RCRA Subtitle I Authority*. This new Appendix will list SWMU 178 and AOC 656. Additional modifications to the current RCRA/HSWA Permit are outlined in the attached internal memo (dated February 16, 1996) from the Hazardous Waste Permitting Section of this Department. Compliance with RCRA Subtitle I (i.e. GWPD requirements) will negate the need for further investigation of the two above mentioned sites under the Permit.

Should the Charleston Naval Base (CNB) wish to proceed with this Permit modification, then a formal request must be submitted to the Department in writing. If you have any questions concerning this matter please contact me at (803) 896-4179.

Sincerely,



**Johnny Tapja, Environmental Engineer Associate
Hazardous Waste Permitting Section
Bureau of Solid and Hazardous Waste Management**

attachments

**cc: Paul Bergstrand, Hydrogeology
Paul Bristol, GWPD
Doyle Brittain, USEPA - Region IV
Tony Hunt, SOUTHDIVFACENGNCOM
Brian Stockmaster, SOUTHDIVFACENGNCOM
Rich Richter, Trident EQC**



Commissioner: Douglas E. Bryant

Board: John H. Burriss, Chairman
William M. Hull, Jr., MD, Vice Chairman
Roger Leaks, Jr., SecretaryRichard E. Jabour, DDS
Cynai C. Masteller
Brian K. Smith
Rodney L. Grandy

Promoting Health. Protecting the Environment

MEMORANDUM

TO: Hazardous Waste Permitting Section

FROM: *J* John Litton, P.E., Manager

DATE: 16 February 96

RE: Permit Modifications for Underground Storage Tanks Regulated by RCRA Subtitle I

Underground Storage Tanks (USTs) may be regulated under RCRA Subtitle C or RCRA Subtitle I depending upon the types of materials managed and the regulatory status of the facility. Please see the attached Departmental Memorandum (Culler to Knox) dated 7 August 1989 for further clarification on which program within the Department would manage a given UST.

A number of Corrective Action Modules for permitted facilities currently list USTs which, consistent with the above-reference Memorandum, are regulated by RCRA Subtitle I. These USTs which are listed as solid waste management units (SWMUs) should not be removed from the Permit; however, the Permit may be modified in a manner consistent with the comments below in order to explicitly state that applicable USTs in the Permit will be regulated by the Department's RCRA Subtitle I program.

1. Modify Section V.A.1¹ (Applicability) to state, "The solid waste management units (SWMUs) and areas of concern (AOCs) identified in Appendix A-1 and A-5, which require further investigation."
2. Add a Section V.L. entitled *SWMUs and AOCs regulated under RCRA Subtitle I*.
3. Add the following text to a Section V.L.1.

The Permittee shall conduct an investigation which will be regulated by the Department's RCRA Subtitle I program. Compliance with RCRA Subtitle I will negate the need for further investigation under the Permit. Section V.L.1. applies to each SWMU or AOC listed in Appendix A-5 and identified in Permit Condition V.A.1.

4. Add an Appendix A-5 and use the following title: *List of Solid Waste Management Units and Areas of Concern which require investigation and will be regulated under the Department's RCRA Subtitle I Authority*.

Please contact me should you have any questions.

Attachment

¹Note that the Section Number for the Corrective Action Module may vary in different Permits.

cc: Mr. Jack Gelting, Manager, Hazardous Waste Section, BSHWM
Mr. Jim Hess, Manager, Assessment and Development Section, GWPD, EDWP