

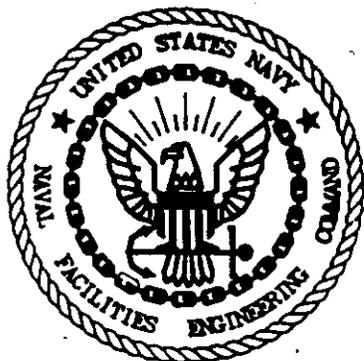
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U S NAVY RESPONSES TO U S EPA AND SOUTH CAROLINA DEPARTMENT OF HEALTH  
AND ENVIRONMENTAL CONTROL COMMENTS TO RESOURCE CONSERVATION AND  
RECOVERY ACT FACILITY ASSESSMENT VOLUMES I, II, III, IV, V CNC CHARLESTON SC

6/6/1995  
ENSAFE

**RESPONSE TO USEPA/SCDHEC COMMENTS  
RCRA FACILITY ASSESSMENT  
VOLUMES I, II, III, IV, V**

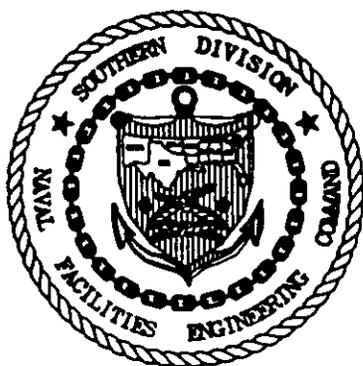
**NAVAL BASE CHARLESTON  
CHARLESTON, SOUTH CAROLINA**



**Prepared for:**

**Department of the Navy  
Southern Division  
Naval Facilities Engineering Command  
Charleston, South Carolina**

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**June 6, 1995**

**RESPONSE TO USEPA COMMENTS  
RCRA FACILITY ASSESSMENT  
VOLUMES I, II, III  
NAVAL BASE CHARLESTON, SOUTH CAROLINA**

**GENERAL**

1. **The Environmental Protection Agency (EPA) remains concerned with the quality of documents submitted by Naval Base Charleston. Document quality could be significantly improved and review time significantly reduced if a technical editor would review the spelling, clarity, completeness, conciseness, and technical and factual accuracy of documents before they are submitted to EPA for review. This is a service which should be available from Naval Base Charleston's contractor. For example, of the seventeen comments below, only one involves a determination by EPA of compliance with EPA policy, guidelines, procedures, regulations, or statutes. The remaining sixteen comments are of a technical-editorial nature. EPA believes that EPA should not be put into the position where EPA must serve as technical editor to improve the quality of documents to a level acceptable for EPA approval.**

The comment is noted.

2. **Tables 1-1, 1-2, 1-1A, 1-2A, SWMU 158. "Qwaywall" is misspelled.**

The spelling of the word "quaywall" has been corrected in the above locations.

3. **There is no consistency in the way that some sites are entitled. For example, sometimes a site is referred to as a "Less than 90 Day Storage Area" and at other times the same site is referred to as a "Less than 90 Day Accumulation Area," i.e., "Storage" and "Accumulation" are used interchangeably. Frequently, both "Storage" and "Accumulation" are missing from the title.**

The titles of all RFAs have been revised to ensure consistency within the RFA titles, the associated figures, and within Tables 1-1, 1-1A, 1-2, and 1-2A.

4. **"Shipyard River" is used when "Shipyard Creek" is the preferred title.**

The RFAs have been revised to state Shipyard Creek.

**SPECIFIC, VOLUME I**

1. **Acronym List. "Conservation" should be capitalized in Resource Conservation and Recovery Act.**

Conservation has been capitalized in the acronym list.

2. **"RV" is used when "RU" is intended.**

This has been corrected.

3. **Section 4.23, Pages 4-72 - 4-73. The information on these two pages is contradictory.**

- a. **Page 4-72 indicates that SWMU 66 is located on Pier C.**
- b. **Page 4-73 indicates that SWMU 66 is addressed as SWMU 80 at Building 194.**
- c. **Which is correct?**

SWMU 66 is located at Pier C.

4. **Figure 5-4. Landmarks, such as road names, need to be added.**

The road name has been added to Figure 5-4.

**SPECIFIC, VOLUME II**

1. **Acronym List. "OVA" indicates "Organic Vapor Analyzer" - not "Oxygen Breathing Apparatus."**

This has been corrected.

2. **Acronym List. "Conservation" should be capitalized in Resource Conservation and Recovery Act.**

Conservation has been capitalized in the acronym list.

**3. Page 4-23.**

- a. Section 4.8, Building 3 Mercury Spill. EPA agrees with the information as provided in the March 10, 1995, Response to Comments.**
- b. Section 4.8.3. The statement is made that "The potential for migration by the air pathway is not probable because mercury is a non-volatile liquid." This is wrong. Mercury is a highly volatile liquid and has significant, adverse health effects at low concentrations.**

Section 4.8.3 has been revised to state that a potential for migration by the air pathway exists due to the volatile nature of mercury.

**4. Copper Dip Tank at Building 5.**

- a. Section 4.9, pages 4-26 - 4-28 and Figure 4-9. The information provided in the RCRA Facility Assessment (RFA) is contradictory.**
  - 1) Note Figure 4-9 in the RFA. The Copper Dip Tank is shown to be *outside* of Building 5. This is correct.**
  - 2) Note the first sentence of Section 4.9.1 of the RFA which says that "SWMU #70 consists of a former dip tank located at the northwest corner of Building 5 (first floor)." This is correct.**
  - 3) Note the seventh sentence in Section 4.9.1 and the second sentence in Section 4.9.4 of the RFA which state that "Considerable staining was noted in the former dip tank area. The concrete in this area was uneven and had noticeable cracks." This is correct.**

**EPA and Naval Base Charleston personnel accompanying EPA on a site visit observed the staining on the concrete to the extent that the outline of the former tank was evident. Residue of the tank's contents was still present on the concrete.**

- 4) Yet, the remainder of the information within Section 4.9 discusses the wooden floor within the building where Naval Base Charleston alleges the tank was located. This is wrong, and contradicts the above information.**

All references to and descriptions of the interior of the building have been removed from the RFA.

- b. March 10, 1995, Response to Comments. The information is argumentative and erroneous.**
- 1) Page 14 states on four occasions that *the fire retardant dip tank was inside the building.***
  - 2) Pages 13 and 14 on two occasions refer the reader to Section 5.25 of the RFA Volume II for information regarding the Copper Dip Tank. However, since Section 5.25 of the RFA discusses Sump Collection Vats within Building 2 which have nothing to do with Building 5, this is erroneous.**
  - 3) Finally, Page 14 concludes by stating that "The location of the fire retardant dip tank inside Building 5 is shown in Figure 4-9." While EPA agrees that Figure 4-9 accurately indicates the location of the Copper Dip Tank, it clearly shows that the tank is *outside of Building 5.***

**Sampling within Building 5 is Naval Base Charleston's choice, but EPA requires that an RFI be conducted in the vicinity of the tank as illustrated in Figure 4-9, *outside of Building 5.***

The responses in the 10 March 1995 Response to Comments were erroneous, and the RFAs have been checked and revised as necessary both to ensure that no further confusion exists between the Building 5 Copper Dip Tank and the Building 2 Sump Collection Vats, and that all references to the Building 5 Copper Dip Tank indicate its location outside the building.

- 5. Section 5.86, Burning Dump, AOC 603. The information in this section is contradictory.**
- a. Page 5-253 indicates that "It was adjacent to the Cooper River and near the present location of Drydock #3." EPA agrees with this statement.**
  - b. Figure 5-86 indicates and also states that "The burning dump was located at the site of Drydock #3."**
  - c. Which is correct? Pending evidence otherwise, EPA recognizes the need for investigating both at Drydock #3 and also in its vicinity.**

The exact boundaries of the burning dump are not known. Therefore, the AOC #603 boundaries have been expanded in Figure 5-86 to encompass both Drydock #3 and the surrounding area.

**6. Section 5.99, Battery Cracking Area. This section contains erroneous information.**

- a. Section 5.99.1, page 5-292 indicates that AOC 621 is associated with the Battery Shop in Building 68.**
- b. Figures 5-99 is entitled "AOC 691 Battery Cracking Area" but portrays AOC 621 at Building 1278. Building 68 is not identified.**
- c. What is the correct information here?**

The battery cracking area was located north of Building 68, located adjacent to Building 1278. However, the unit name included Building 68 because the unit was utilized as part of operations at Building 68. In order to provide a sufficient scale to delineate the boundaries of the unit, Building 68 could not be shown on Figure 5-99.

**7. Figures 5-142, 5-143, and 5-154 need to be considered together. All three figures indicate firing ranges in the same geographic area. Figure 5-143 is erroneous.**

- a. Figure 5-142 is accurate and best illustrates the locations of the firing areas.**
- b. Figure 5-154 is accurate and illustrates the locations of the firing areas.**
- c. Figure 5-143 is inaccurate.**
  - 1) It accurately identifies the location of AOC #684.**
  - 2) But, in one place, it identifies AOC #669 as having the same boundary as AOC 684. This is wrong.**
  - 3) And, in another place, it identifies AOC #669 as being in the geographic area that should be labeled AOC #670 - no mention is made of AOC #670. This is wrong.**
- d. In all three figures, the berm for AOC #684 needs to be identified.**

Figure 5-143 has been revised to correct the boundaries of AOC #669 and to properly label AOC #670. Additionally, the approximate location of the AOC #684 berm has been added to all three drawings.

### **SPECIFIC, VOLUME III**

1. **Acronym List. "CIA" stands for "Controlled Industrial Area" - not "Central Intelligence Area."**

This has been corrected.

2. **Acronym List. "SWDA" stands for "Solid Waste Disposal Act."**

This has been corrected.

3. **Section 4.4.6, and also the March 10, 1995, Response to Comments. EPA understands and respects the need for national security and restricted access to classified information. EPA has personnel with appropriate security clearances to inspect classified areas and review classified information. If Naval Base Charleston's contractor does not have the appropriate security clearance, and if this RFA is not the appropriate manner to identify the site conditions, EPA is willing to work with Naval Base Charleston to inspect the sites and review the information necessary to determine the appropriate strategy for a hazardous waste investigation. However, EPA does not consider the length of time that hazardous waste was managed at SWMU #146 or any location to be an acceptable criterion for not doing a hazardous waste investigation. The options then become:**

- a. **Allow an EPA person with appropriate security clearance to inspect these sites and obtain sufficient information to determine the appropriate strategy for a hazardous waste investigation, or**
- b. **Conduct an RFI at these sites.**

**Philosophically, the *absence* of information rules in - not out - the need for a hazardous waste investigation, whereas the *presence* of information may rule in or out the need for a hazardous waste investigation.**

**With regard to SWMU 146, EPA has already inspected this site and determined that No Further Investigation (NFI) is appropriate at this time.**

The SWMU #146 RFA has been revised to better describe the site conditions.

**RESPONSE TO SCDHEC COMMENTS  
RCRA FACILITY ASSESSMENT  
VOLUME IV  
NAVAL BASE CHARLESTON, SOUTH CAROLINA**

**GENERAL COMMENTS**

- 1. In review of the Environmental Baseline Survey (EBS) there are several underground and aboveground storage tanks located at the Naval Annex. The RFA should include any tank that stored a waste product as a SWMU. Any tank that stores virgin petroleum products, or did store virgin petroleum products and had a release to the environment must be registered with the Department's Groundwater Protection Division (GWPD). During the March 3, 1994 site visit to the Naval Annex, it was mentioned by site personnel that an oil spill had occurred onsite. If the oil was a waste product, then this site should be listed as a SWMU and included in the RFA. If the oil was a virgin product, then this site should be notified with the Department's GWPD.**

All tanks listed in the EBS stored virgin product. The CNSY Occupational Safety, Health, and Environmental office is confirming that these tanks are properly registered. The only oil spillage known to have occurred was adjacent to an aboveground petroleum storage tank at Building 2513. A visual subsurface soil investigation was performed adjacent to this aboveground petroleum storage tank in the spring of 1993. Hand auger boring samples were taken and visually inspected; a petroleum odor was detected during this process. No soil analysis was conducted as part of this investigation. This issue is being addressed under the UST program.

- 2. Although several of the figures presented in the RFA do have scales, many other figures are without scales. The RFA should have consistency throughout the document with proper scales for each figure.**

All figures have been revised to include scales.

- 3. At several sites, the RFA states that the exposure potential exists for current users as well as for future users of the site, while no further investigation is the recommended action. The RFA must include sufficient wording to clearly support whatever action is recommended.**

The approach taken in preparation of RFAs at Naval Base Charleston was to identify what exposure pathways would exist **IF** a release had occurred; similarly, the migration pathways which would exist and could be impacted **IF** a release had occurred were identified. This information was collected and presented regardless if there was evidence

of releases or not. As such, NFI recommendations were often made in spite of the presence of migration or exposure pathways because no evidence of release was found. This approach complies with the procedures described in the USEPA RFA Guidance Manual.

#### **SPECIFIC COMMENTS**

4. **3.2.6 Environmental Monitoring.** The RFA states that no environmental monitoring has been performed at the Naval Annex. However, during the March 16, 1994 site visit, it was mentioned by site personnel that soil sampling had taken place for an apparent oil spill. Any relevant data with respect to this sampling or any other environmental sampling should be referenced in the RFA.

The only sampling known to have occurred was adjacent to an aboveground petroleum storage tank at Building 2513. A visual subsurface soil investigation was performed adjacent to this AST in the spring of 1993. Hand auger boring samples were taken and visually inspected; a petroleum odor was detected during this process. No soil analysis was conducted as part of this investigation. This information has been incorporated into Section 3.2.6. This is being addressed under the UST program.

5. **4.2 SWMU #162 — Sludge Drying Field, MOMAG 11.** The RFA discusses the possibility of a liner underneath the sludge drying field. If such a liner exists, the integrity of this liner is unknown. Therefore, soil, groundwater and subsurface gas are all potential migration pathways.

This RFA has been revised to state that these migration pathways exist, and that further investigation will be conducted under the conservative assumption that no such liner exists.

6. **4.6 SWMU #166 — Sewer System, Naval Annex.** The RFA should provide additional information concerning the sewer system. This information should include a discussion of any abandoned sewer lines, the previous onsite treatment plant and location, and the use of any oil water separators and industrial septic systems.

Additional information on these topics was incorporated into the RFA. However, much of this information is unknown because the information was not provided by the Air Force when the property transferred to the Navy in the early 1960s. For example, the only information known about the former treatment plant is its location; the Navy never operated the unit, and therefore has no information on its operations.

7. **4.12 SWMU #172 — Building 80, Steam Cleaning Operations.** The RFA states that drains from this unit discharged to the storm sewer system and that the storm sewer system will be investigated as a separate unit, SWMU #137. However, SWMU #137 is not the storm sewer system for the Naval Annex nor is the Department aware that the Naval Annex storm sewer system has been identified as a SWMU. This discrepancy should be clarified.

The Naval Base Charleston storm sewer system has been designated as AOC #699 rather than SWMU #137; this has been corrected in the RFA. However, Building 80 is not located at the Naval Annex, but is rather located at Naval Base Charleston. As such, storm sewer discharges from Building 80 will be addressed during the investigation of AOC #699. The location of Building 80 has been clarified in the text of Section 4.12.

- 8.0 **4.17 SWMU #177 — RTC-4 Oil Spill.** The former RTC-4 facility should also be included as part of the SWMU designation and noted as such on Figure 4-17.

Section 4.17 has been revised to include the former RTC-4 facility within SWMU #177. Figure 4-17 has also been revised to reflect this change.

- 9.0 **5.3 AOC #698 — Building 2508, Boiler House, Naval Annex.** The aboveground storage tank should also be included as part of the SWMU designation and noted as such on Figure 5-3.

Section 5.3 has been revised to incorporate the AST within this unit.

**RESPONSE TO USEPA COMMENTS  
RCRA FACILITY ASSESSMENT  
VOLUME IV  
NAVAL BASE CHARLESTON, SOUTH CAROLINA**

1. **The "List of Acronyms" is missing.**

An acronym list has been incorporated into the document.

2. **Tables 1-1, 1-1A, SWMU 158. "Quaywall" is misspelled.**

This spelling error has been corrected.

3. **Page 4-5, Section 4.2.2. Paint residue should be included.**

Paint residue has been incorporated into the waste characteristics for this site.

4. **Page 4.5, Section 4.2.3. Reference is made to the possibility of a liner being used in the Sludge Drying Field prior to the disposal of sludge. Use of liners in such applications, during the active life of SWMU #162, was not a normal operating practice. The investigation should focus on the impact of SWMU #162 without a liner.**

The RFA has been revised to state that further investigation of this unit will be conducted under the conservative assumption that no such liner exists.

5. **Page 4-48, Section 4.15.6. EPA disagrees with No Further Investigation (NFI) being conducted at this site. The nature of the operations were such that a release to the environment was highly probable. EPA recommends a Resource Conservation and Recovery Act (RCRA) Facility Investigation (RFI).**

Philosophically, the *absence* of information rules in - not out - the need for a hazardous waste investigation, whereas the *presence* of information may rule in or out the need for a hazardous waste investigation.

The RFA has been revised to recommend an RFI for SWMU #175.

**RESPONSE TO SCDHEC COMMENTS  
RCRA FACILITY ASSESSMENT  
VOLUME V  
NAVAL BASE CHARLESTON, SOUTH CAROLINA**

**GENERAL COMMENTS**

1. **Although several of the figures presented in the RFA do have scales, many other figures are without scales. The RFA should have consistency throughout the document with proper scales for each figure.**

All figures have been revised to include scales.

**SPECIFIC COMMENTS**

2. **Section 4.3 — SWMU #183. The RFA should mention that this SWMU will be undergoing RCRA closure as per Consent Order 94-15-HW, signed May 9, 1994.**

Paragraph 4.3.6 of the RFA has been revised to incorporate this information.

3. **Section 4.13 — SWMU #194. The RFA should provide additional information as when and what type of action Code 106 is implementing at the petroleum release. If remedial action is not taken, this site may be added to the list of SWMUs requiring further action.**

Following the site visit, the CNSY Occupational Safety, Health, and Environmental Office remediated the site, disposed of approximately two to three inches of impacted soil and equipped the diesel AST with concrete secondary containment. This information has been incorporated into paragraph 4.13.4 of the RFA.

4. **Section 5.2 — AOC #700. The RFA states that visual evidence indicates that several releases have occurred. However, the RFA does not indicate what the visual evidence is or where it is located. The RFA should provide this information.**

The visual evidence consisted of dark stained soils on the west and northwest sides of the unit as well as along the fence adjacent to the railroad tracks and Hunt Street. Additionally, stressed and dead vegetation was noted on the west, north, and northwest sides of the unit. This information has been incorporated into the RFA.

5. **Section 5.3 — AOC #701. The RFA identifies two former petroleum underground storage tanks (USTs) within this AOC. The CNS should ensure that there are not any regulatory requirements by the Department's Ground Water Protection Division (GWPD) for the USTs.**

The two USTs were located, filled with sand, and closed in place in 1973. Closure pictures were taken, and soil samples were obtained and analyzed for soils surrounding the tank location. Analytical results showed the surrounding soils to be clean at the time of tank closure. Additionally, a technical memorandum from SCDHEC concerning these tanks states that, because the tanks were closed prior to 1974, no regulatory notification of the existence of the tanks is required.

**RESPONSE TO USEPA COMMENTS  
RCRA FACILITY ASSESSMENT  
VOLUME V  
NAVAL BASE CHARLESTON, SOUTH CAROLINA**

**1. List of Acronyms.**

- a. Biological Oxygen Demand is more appropriately abbreviated "BOD."**
- b. "Conservation" should be capitalized in Resource Conservation and Recovery Act.**
- c. Regulated unit is abbreviated "RU."**

BOD<sub>5</sub> is the accepted abbreviation for five day Biological Oxygen Demand.

The above corrections have been made in the acronym list.

**2. Page 3-3, Section 3.2.5. "Rural" is misspelled.**

This spelling error has been corrected.

**3. Page 5-3, Section 5.1.6. "Sanitary" sewer should be changed to "Storm" sewer.**

This error has been corrected.