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MEMORANDUM FOR ENVIRONMENTAL BASELINE SUITABILITY TRANSFER (EBST) AND
FINDING OF SUITABILITY TRANSFER (FOST) FOR PHASE II PARCELS VOLUMES I II AND
III CNC CHARLESTON SC

05/30/2001

SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL



2600 Bull Street
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May 30, 2001

CERTIFIED MAIL

Matthew Humphrey
Caretaker Site Office
NAVFACENGCOM, Southern Division
P. O. Box 190010
North Charleston, SC 29419-9010

Re: Draft Finding of Suitability for Transfer (FOST)/ Environmental Baseline Survey for Transfer (EBST) Revision 0 for the Charleston Naval Complex, dated March 16, 2001.

Dear Mr. Humphrey:

The South Carolina Department of Health and Environmental Control (SCDHEC) has reviewed the above referenced document according to applicable State and Federal Regulations, and the Charleston Naval Complex Hazardous Waste Permit, effective September 17, 1998. The attached comments were generated based on this review. These comments must be addressed prior to the SCDHEC's concurrence of the above referenced document.

Further, the CNC should submit, to SCDHEC, the comment responses to address these comments within thirty calendar days of the receipt of this letter. This would facilitate the comment resolution and expedite the approval process. Should you have any questions regarding these comments, please contact me at (803) 896-8955.

Sincerely,

Keith Collinsworth, P.G.
Federal Facility Liaison
EQC Administration

Attachments:

1. Memorandum from Paul Bergstrand to Mihir Mehta dated May 29, 2001.
2. Memorandum from Mihir Mehta to Keith Collinsworth dated May 29, 2001.
3. Memorandum from Michael Bishop to Keith Collinsworth, dated May 18, 2001

cc: Mihir Mehta, BLWM
Paul Bergstrand, BLWM
✓ Michael Bishop, BOW

RECEIVED
MAY 31 2001
Water Monitoring Assessment & Protection Division

Rick Richter, Trident EQC
Tony Hunt, Navy
Dann Spariosu, EPA Region IV

MEMORANDUM

TO: Keith Collinsworth, P.G.
Federal Facility Liaison
EQC Administration

FROM: Mihir Mehta, Project Manager
Corrective Action Engineering Section
Division of Waste Management
Bureau of Land and Waste Management

DATE: May 29, 2001

RE: Charleston Naval Complex (CNC)
SCO 170 022 560

Environmental Baseline Survey for Transfer (EBST) and Finding of Suitability to Transfer (FOST) for Phase II Parcels, Volume I, II, & III, Charleston Naval Complex, SCO 170 022 560, Revision 0, dated March, 2001, received March 14, 2001.

The South Carolina Department of Health and Environmental Control (Department) has reviewed the above referenced document according to applicable State and Federal Regulations, and the Charleston Naval Complex Hazardous Waste Permit, effective September 17, 1998. The attached comments were generated based on this review.

Should you have any questions regarding these comments, please contact Mihir Mehta at (803) 896-4088.

Attachment: Memorandum from Paul Bergstrand to Mihir Mehta dated May 29, 2001.

South Carolina Department of Health and Environmental Control comments on: Environmental Baseline Survey for Transfer (EBST) and Finding of Suitability to Transfer (FOST) for Phase II Parcels, Volume I, II, & III, Charleston Naval Complex, SCO 170 022 560, Revision 0, dated March, 2001, received March 14, 2001.

Comments By Mihir Mehta:

Volume I

1. **Executive Summary.**

The Navy should clearly state that the RFI work is on-going at the CNC with respect to RCRA Permit. During this investigation there may be a possibility to link the past contaminant release, due to the Navy's operations, to the property that is being proposed for transfer. In the event this situation arises the Navy has the responsibility and liability to conduct adequate corrective action. (For example: Zone J investigation may lead to the storm drains that are associated with the property proposed for transfer.). Please revise the executive summary to address this comment

This comment specifically is important for the facilities such as "Summary of Piers V, W, & X (NS-11, NS-12, and NS-13). Based on the information provided it is understood that staining characteristics of chemical precipitates were observed at the storm water drain outlet near the pier area. There was no information with respect to nature and origin of such observations.

2. **Executive Summary. Page ES-1.**

Lines 32 – 41 discusses the "facility disclosure factors" that do not require notification under CERCLA 120 (h) (1) and therefore, do not affect the property characterization process. The Department, under RCRA, requires understanding of past operations and activities that are related to potential sources/releases for PCBs, mercury, and pesticides constituents. Not to consider these factors during the property characterization process provides inadequate information of the environmental condition of the property to the potential purchaser. The Department is amenable to further discuss this issue in detail.

3. **Section 2.2. Property Categorization Criteria. Page 2-2.**

Calculated subsurface background values are used as screening values for describing Category 2. These are sites where petroleum products have been released, the subsurface concentration is below calculated background, but there is groundwater contamination. This scenario is not captured in any of the seven categories listed in this section. There are sites within the referenced document that meet's this criteria. Please revise and discuss the incorporation all possible scenario in the property categorization process.

4. **Section 2.3. Property Categorization. Page 2-4.**

Line 6. Solid Waste Management Unit (SWMU) is listed as one of the factors evaluated for

potential impacts to the environmental condition of the facilities. Please add Area of Concerns (AOCs) to this list and revise all pertinent sections of the document as deemed appropriate.

5. Section 2.3. Property Categorization. Page 2-4.

Under the CNC RCRA Permit PCBs, Mercury, and Pesticide sources and/or releases are considered sites that require investigation and potentially identified as AOCs or SWMUs. In the referenced document these items are not considered as factors evaluated for potential impacts to the environmental condition of the facilities but are listed as disclosure factors. It is stated in the referenced document that CERCLA does not regulate these items. In order for the Department to concur with the findings of the referenced EBS these factors must be considered and evaluated in order to properly understand and reflect the current environmental condition of the facilities and adjacent properties. Please revise all pertinent sections of the referenced document to address this comment.

6. Section 2.4.4. Installation Restoration Program Sites (IRPs). Page 2-7.

As written this section indicates that all RCRA Facility Investigation (RFI) reports have been completed. It also states that the RFI reports identifies sites that require remediation. Please note that the RFI process is still ongoing for Zones E, F, G, H, I, J, L and K. It might be beneficial if zone specific information/status is provided or discussed that affects the property proposed for transfer. Also state that there is always a possibility to identify a new site or conduct more investigation for an existing site.

7. Section 2.4.7.2. Oil/Water Separators (OWSs).

Section 3.1.8.2. Oil/Water Separators (OWSs).

Recently, the Navy conducted a CNC wide study identifying all OWSs on the base and also identified the investigation approach for each of these OWSs. There were few new AOC created as a result of this study. This section should be revised to list the OWSs on the proposed property and identify the OWSs that require additional investigations. Also, describe within the individual facility evaluation why the OWSs should not be considered for further evaluation.

8. Section 3.1. Environmental Factors. Page 3.0.

Please clarify whether the AOCs or SWMUs related to railroads, sewer lines, storm water drains/ditches, and surface water bodies (Zone J) were included and illustrated in this section. It should be noted that the RFI for the above stated sites are not complete and in future may lead to more investigation and possible corrective action with the property proposed for transfer.

9. Figure 3-1. Environmental Factors in Zone A and Adjacent Properties.

This Figure shows the boundary of the SWMU 39 as a footprint of the building but does not indicate the VOC groundwater plume boundary/contours associated with this site. This is very important with respect to understanding the environmental condition of the adjacent property. The Department considers the boundary of the site (AOC or SWMU) that includes the extent of contaminant release associated with it. Please revise this figure and all other

figures and text in all pertinent section of the referenced document to address this concern.

10. Figure 3-3. Environmental Factors in Zone C and Adjacent Properties.
The referenced Figure provided no illustration of contaminated sites (e.g., SWMU 25 and SWMU 70 in Zone E) within one-quarter mile of the subject property proposed for transfer. Please revise the figure to address this comment.
11. Figure 3-4. Environmental Factors in Zone G and Adjacent Properties.
Please identify the Cooper River as a site within Zone J (surface water bodies at CNC). Please revise all pertinent sections, text, and figures to address this comment. Also, note that the RFI investigation has not been completed and may affect the decisions made for the property proposed for transfer. This fact should be explicitly stated within the text of the FOST and the Executive Summary.
12. Table 3-1. Summary of Hazardous Materials and POL Occurrences. Page 3-8.
 - Please identify the Zones associated with the Building Number (first column).
 - Indicate whether the information provided in the "Material Stored" column is for most recent use or includes all or known past uses.
 - Please clarify if this table identifies hazardous materials such as PCBs, Mercury, Lead (not Lead-based paint) and Pesticides for the property proposed for transfer.
13. Table 3-3. Summary of SWMU and AOC Sites in the EBS Area. Page 3-11.
 - Please indicate what facility or Building is the SWMU or AOC associated with.
 - Please provide an accurate status of SWMUs and AOCs.
(e.g., 1) SWMU 42: status for the IM that is being proposed. IM Work Plan has been approved, however anticipated change in the IM strategy expected and revision to the IM work plan not approved. The Department considers IM to be complete after the field work has been implemented and IM completion report approved by the Department. 2) SWMU 120 in Zone G indicates RFI complete. Currently, the Department is in the process of evaluating the RFI data and the RFI Report is not approved to indicate that the RFI is complete.)
 - Please provide an accurate status of SWMUs and AOCs in Tables 3-9 & 3-10.
(e.g., 1) AOC 681 states RFI complete. This is not accurate. Zone I RFI Report is not approved. 2) SWMU 14 RFI report is not approved and therefore is not complete. Also, IM is not complete as IM work plan is not approved by the Department, field implementation not conducted, and IM completion report not approved)
14. Section 3.2.3 Polychlorinated Biphenyls (PCBs). Page 3.24.
PCB releases or potential sources are considered hazardous and investigated under the CNC RCRA Permit. This section indicates that approximately 24 PCB transformers have not been sampled for its contents. Please provide a path forward for the investigation and understanding of these transformers sites prior to including them in the referenced property transfer.

15. Section 3.4. Adjacent Properties. Page 3-29.

- The Navy should provide in the table 3-9 and table 3-10 or create a new table to identify all SWMUs and AOCs along with their status that have a common boundary with the subject property proposed for transfer. Also, provide a list of SWMUs or AOCs within one-quarter mile of the subject property proposed for transfer.
- This section indicates that the evaluation of adjacent property within one-quarter mile was conducted during the Phase I FOST. The Department believes that the one-quarter mile adjacent property evaluation around each parcel of land proposed for transfer in this FOST should be evaluated in the referenced document. Appropriate maps and figures should also accompany this evaluation.
This section states that only those sites that are hydraulically up gradient of the subject property are identified in this EBS. The Department does not concur with this approach. The goal is to present the environmental condition of the adjacent property to include all media. The Navy can state whether a site is hydraulically up gradient or not but should not be the only criteria for identifying the adjacent property sites for this EBS. Please revise the document to address this comment.
- For individual facility evaluation in the appendix of this document please revise the figures, as deemed appropriate, to show the SWMU or AOC within the foot print of the property or having a common boundary or near the property.

16. Section 3.4. Adjacent Properties. Page 3-29.

This section does not present any information that would help understand the risk associated with the adjacent property and how does it relate the subject property. Please revise the entire section to include adequate information regarding the risk, hazard, or other issues related to adjacent property as deemed appropriate. This being one of the important criteria to be evaluated for the approval of this document, the Department recommends that the Navy provide appropriate details.

The Navy has not clearly described the risk associated with the adjacent property and how does it relate the subject property. Therefore, the tables should be revised to state the current status of the RFI reports. Also, this table does not provide any information related to the nature and extent of contamination, risk/hazard associated with it, and any corrective action if conducted. The goal is not only to know the status of RFI reports but also to provide the information as stated in this comment. Please revise this section accordingly.

17. Section 4.1.2. Category 3 through 7 Property.

Please clarify which 7 facilities are discussed in "Category 4" and what are the PAHs of concern. The background criteria used for the PAH concentration screening (1400 mg/kg) was developed for the RCRA sites (SWMUs and AOCs). Please be more specific as to where the screening criteria are used.

18. Section 4.3. and 4.4. Incomplete Findings and Data Gaps. Page 4-2.

The Navy should note that the FOST and EBS are in support for the property transfer with unrestricted land use. For the Department to concur on this FOST all the areas where there is

a data gap or investigation is ongoing or corrective action is proposed or corrective action is on going should be removed from the referenced FOST.

19. Summary of the Facilities and Buildings.

During the evaluation of specific facilities or buildings please indicate if there are any sites that are within the footprint of the subject property or have a common boundary with this facility. Please revise the text to indicate the SWMUs or AOCs within one-quarter mile of the referenced facility as deemed appropriate. Please revise all pertinent sections to reflect the changes to address this comment.

20. Summary of Facility 4.

This facility has a 55-gallon drum and some 5-gallon containers stored that contains hydraulic oil based on visual observation. An unplugged floor drain was observed. Also, several stains were observed throughout the basement floor. The information provided indicates that additional investigation is necessary to understand the environmental condition of the property. Also, waste is stored on the property that requires investigation and disposal. It appears that this property may not be currently suitable for transfer until the stated concerns are addressed.

21. Summary of Facility 8/8A.

- Major data gaps are noted with respect to asbestos abatement. This section provides possible action scenario but does not confirm any action completed to address the data gap.
- This section states that PCB transformers are present on the subject property. The information provided does not show that the PCB analysis and data gaps have been completed. The Department considers this to be a data gap and therefore, cannot concur with the property transfer with unrestricted land use. More evaluation and discussion are necessary to resolve this comment.
- The warehouse area adjacent to the facility has no documented use and spills were observed on the floor. Please provide additional information to address this comment.

22. Summary of Facility 191.

- Floor drains (about 6) were noted at the subject property. The Navy should note that the current RFI investigation for storm water drain, ditches, and surface water bodies may lead to possible corrective action near or within this area.
- This section notes that the UST program corrective action plan for monitored natural attenuation, effectiveness and compliance monitoring has been approved by the Department. These indicate that the corrective action is ongoing. For the property to be transferred for unrestricted land-use all corrective actions have to be completed. Therefore, the Department cannot concur with the transfer of the subject property.

The Department cannot concur with the transfer of the following facilities with respect to second bullet of comment number 22:

1. Facility 28

2. Facility NH 1137 and NH-60
3. Facility NH-46
4. Quarters O

Volume II

23. Summary of Facility 1628.

- Please revise the figure to show the SWMU 39 and the associated groundwater plume. Also, as stated previously please indicate all sites that the adjacent to the subject property.
- SWMU 43 has NFA approval from the Department but the RCRA Permit has not been modified. Please state this fact in the referenced FOST.

24. Summary of Facility 1655.

The PCB section states that, "The transformer for this facility, #17071, was not labeled, but is unlikely to contain PCBs above 50 ppm." The Department considers this to be a data gap and the fact has to be confirmed prior to the Departments concurrence for the subject property transfer.

25. Summary of Facility No. 1790.

Please provide accurate information for the cleanup strategy for SWMU 14. Also, delete the sentence that the SWMU 14 is being proposed for NFA. It may be a possibility in the future but not within the time frame for the approval of the referenced document.

26. Summary of Facility 1793.

- This section indicated two major data gaps related to understanding the environmental condition of the property: 1) no investigation or information have been provided for the lead batteries and breaker switch station that contains POLs and stored inside the facility; and 2) the breaker switch filled with oil has not been tested for PCB concentration. This could be a potential source for the release of POLs especially there is no information about the stability and durability of the storage. Therefore, the Department recommends deleting the referenced facility from the FOST until additional information is provided to address this comment.
- Page 2 lines 6-9 states that the SWMU 9 is a closed domestic waste landfill. This information is not accurate. There has been no record of the waste disposal activities for this landfill. It could have received hazardous waste, bio-medical waste, firing arms waste, and any miscellaneous waste. Please revise this section to address this comment.

27. Summary of Facility 1799.

- The "major findings" section stated that a Zone wide investigation is ongoing for the spoil area/fill material. The Department is not aware of any such investigations. Please clarify. Also, revise all pertinent sections of the referenced document to address this comment.

- Please clarify why this facility was identified as category 3 when there is not record of current or past use or release of hazardous constituents, petroleum spills, no tanks etc.

28. Summary of Facility 336.

From the information provided this facility includes SWMU 120. The RFI report for SWMU 120 has not been approved.

The information provided indicates that the transformers have leaked and cleanup activities are initiated but no record of completion. PCB concentration has not been determined. Was the Department notified about this incident and cleanup activities? There appears to be a strong possibility for a new SWMU or AOC.

Based on the information provided the Department cannot concur with the transfer of this facility for unrestricted land use at this time. Please provide additional information and path forward to address this comment.

Volume III

29. Summary of Facility M-3A.

- Numerous oil and grease stains and spill were observed but there is no data or evaluation whether this poses any environmental concerns. More investigation in this area might be warranted.
- PCB content of the transformer has not been sampled. There could be the possibility of PCB content greater than 50 ppm.

Therefore, the Navy should address this comment and provide additional information for the Department to concur on the property transfer for unrestricted land use.

Summary of Facility M-5. PCB content not sampled is the data gap.

Summary of Quarters B/1284. PCB content not sampled is the data gap.

30. Summary of Facility NH-55.

The data gap section indicates a PCB transformer leak but the transformer was not removed due to space confinement. There are eight transformers located at this facility. No additional information is provided and therefore, the Department considers this to be a major data gap and could possibly be a new site for further investigation. With the information provided within this document the Department cannot concur with the transfer of the subject property for unrestricted land use.

MEMORANDUM

TO: Mihir Mehta, Environmental Engineer Associate
Corrective Action Engineering Section
Division of Waste Management
Bureau of Land and Waste Management

FROM: Paul M. Bergstrand, P.G., Hydrogeologist
RCRA Hydrogeology Section
Division of Hydrogeology
Bureau of Land and Waste Management

DATE: 29 May 2001

RE: Charleston Naval Base (CNAV)
Charleston County, South Carolina
SC0-170-022-560

Draft Finding of Suitability to Transfer, Phase II
Draft Environmental Baseline Survey for Transfer, Phase II
Revision 01, Dated March 2001

The materials referenced above have been reviewed with respect to the requirements of R.61-79 of the South Carolina Hazardous Waste Management Regulations, The Environmental Protection Agency's (EPA) RCRA Facility Investigation Guidance Document dated May 1989, the EPA Region IV Environmental Compliance Branch Standard Operating Procedures and Quality Assurance Manual (SOP/QAM) dated May 1996, the CNAV Final Comprehensive Sampling and Analysis Plan dated 30 August 1994, CERFA 120(h) as amended.

Comments on the Phase II Draft Finding of Suitability to Transfer and Draft Environmental Baseline Survey for Transfer have been provided

Comments by Paul M. Bergstrand
Draft Finding of Suitability to Transfer, Phase II
Draft Environmental Baseline Survey for Transfer, Phase II
Dated March 2001

DRAFT FINDING OF SUITABILITY TO TRANSFER, PHASE II

1. Page 1, Property Description

This section incorrectly states Facilities 1799 and NSC-45 are in Zone E. Facility 1799 is located in Zone I and Facility NSC-45 is located in Zone C. This should be corrected.

2. Based upon new information provided in the Draft EBST, it was noted that the following sites were not included in the RCRA RFA process; Facility M-1067, Facility M-1116 and Facility M-3A. The following comments provide specifics as to why these Facilities should be removed from the FOST process.

3. Based upon new information provided in the Draft EBST and other documents, it was noted that the following sites were not properly addressed: Facility 28 and NH-21. The following comments provide specifics as to why Facility 28 may need to be removed from the FOST process and why NH-21 should be removed from the FOST process.

DRAFT ENVIRONMENTAL BASELINE SURVEY FOR TRANSFER, PHASE II

4. Page ES-2, Executive Summary, Lines 11 -17.

Reading this section appears that only petroleum constituents are considered in the DOD Categorization scheme. Please revise.

5. Page 1-7, Table 1-1, Property Investigated.

As in comment 1, this section incorrectly states facilities 1799 and NSC-45 as being in Zone E. This should be corrected.

6. Page 2-5, Section 2.4.1, Groundwater Contamination, Lines 6 - 10.

This section discusses how contaminated groundwater plumes intersecting a facility are categorized. However, the information regarding the proximity of contaminated groundwater to sites in the Phase II FOST is not clear. Two examples would be the groundwater contamination at SWMU 27/70 in Zone E which is adjacent to the Zone C property and SWMU 39, Zone A which could affect the property in Zone A. This section should be revised to include maps and figures clearly showing the proximity of all contaminated groundwater to sites in the Phase II FOST as well as groundwater flow directions.

7. Page 2-6, Section 2.4.2, Hazardous Materials and POLs, Lines 3 – 13.

This section discusses how the calculated BEQ background value is used to evaluate releases to the environment at UST sites. This PAH background value was developed in the RCRA Subtitle C Program area and not in RCRA Subtitle I Program area, USTs. Please be advised, that this background value may not be acceptable to the Subtitle I Program area. Revisions to the EBST and FOST may be required by the UST program area.

8. Page 3-1, Section 3.1.1, Groundwater Contamination, Lines 15 – 19.

This section discusses shallow groundwater flow at the CNC. As in comment 6, this section should be revised to include maps and figures clearly showing the groundwater flow directions for contaminated groundwater within ¼ mile of the sites to be transferred..

9. Page 3-1, Section 3.1.1, Groundwater Contamination, Lines 20 - 24.

This section discusses shallow groundwater contamination migration at the CNC and states there is “little or no development of a contaminated plume of hazardous substances or POLs at the facilities evaluated in this EBS. As in comment 4, this section should be revised to include maps and figures clearly showing the migration of contaminated groundwater over time in relation to sites in the Phase II FOST.

10. Page 3-8, Table 3-1.

This table provides a summary of Hazardous Materials and POLs, however, several sites are notable by their absence. Those notable sites are NH-21, M116, M17, and M3A. Furthermore, it is not clear if there are other sites that should be on this list. Please review all information and revise this table.

11. Page 3-10, Section 3.1.5, RCRA SWMUs and AOCs, Lines 16 – 38.

This section states “Currently there are four active SWMUs in the EBS area.” It is not clear if the SWMUs or AOCs are “IN” the area to be transferred or in the adjacent to the “AREA” to be transferred. Also there are other active SWMUs, such as SWMUs 39 and 25/70, which may affect the FOST property that should be included in this section and were not. Furthermore, this issue is confounded by Section 3.4 titled “Adjacent Properties” which does not included this listing of SWMUs and AOCs found here. Please revise.

12. Page 3-11, Table 3-3

This table provides a summary of the SWMU and AOC sites “in the EBS Area” and includes a status of work. This list in not up to date. For example, SWMU 42 has an approved IM workplan. Please revise.

13. Page 3-14, Table 3-4

The codes used on this table are not defined. Please revise.

14. Page 3-14, Table 3-4

This entire table includes sites listed as "Category 5 and Category 7" in the DOD Classification of property scheme. This would be contradictory to the statement in the EBST Executive Summary (Page ES-2) which states "There are no facilities assigned Property Categories 5 through 7." Please correct.

15. Page 3-15, Table 3-4

Facility 54 (1138) has a comment that states "Free product found in tank pit". There was no other discussion of this facility in the FOST appendix. Based upon the report of free product and the status of the Corrective Action Plan, this site may not be suitable for transfer. Please revise.

Please note, there are other facilities in this table that are still "under evaluation" and may not be suitable for transfer. Please review all information and revise this table.

16. Page 3-17, Table 3-4

Facility NH-21 has a comment that states "UST was included a part of AOC 510." This is not correct. A review of the June 6, 1995 RFA, the January 1996 Draft RFI Report and the November 1997 RFI Report all fail to include a UST in the site description and site evaluation. A UST was not included as a part of the AOC 510 investigation. Please review all information and correct this table.

17. Page 3-17, Table 3-4

This table omitted a facility number after NH-46. Please correct.

18. Page 3-20, Table 3-5

The codes used on this table are not defined. Please revise.

19. Page 3-22, Section 3.1.8.2 Oil/Water Separators, Lines 6 – 7.

This section states "An inactive OWS was observed at Facility NH-21. The OWS received a NFA decision as part of AOC 510. A review of the June 6, 1995 RFA, the January 1996 Draft RFI Report and the November 1997 RFI Report all fail to include an OWS in the site description and site evaluation. An OWS was not included as a part of the AOC 510

investigation. Because an OWS was observed and has not been addressed in the RCRA process this site must be removed from the FOST and EBST.

20. Page 3-29, Section 3.4, Adjacent Properties, Lines 6 – 12.

This section states "For this EBS, the AOCs and SWMUs hydraulically upgradient were identified, since any impact to the groundwater may affect the environmental condition of those facilities in the downgradient direction." This document should include maps and figures which include groundwater flow/gradient and the extent of the contamination as it is currently known. Please revise.

21. Page 3-29, Section 3.4, Adjacent Properties, Lines 13 – 17.

This section states "Zone E is currently under RCRA investigation. Although several AOCs and SWMUs have been identified in this area, none are expected to affect the subject properties based the preliminary investigation." A November 1997 Draft Zone E RFI Report, however, has been submitted and indicates a potential groundwater problem from SWMU 25/70 which could impact the property to be transferred in Zone C. Information from the Draft Zone E RFI Report should be used to provide adequate information to be included in this FOST/EBST. Please revise.

22. Page 4-2, Section 4.2, Adjacent Property.

This section limits adjacent SWMUs and AOCs to those being hydraulically upgradient of the Phase II EBST properties. This approach is not appropriate since some contaminants can migrate by gravity against the hydraulic gradient. All SWMUs and AOCs should be included regardless of the hydraulic gradient. Maps and figures showing sites, SWMUs and AOCs, known groundwater contamination, hydraulic gradient, etc. should be included. Please revise.

23. Page 4-3, Section 4.4, Filling Data Gaps, Lines 21 – 27.

Please include monitoring wells as potential ongoing or issue specific investigations. Please revise.

24. Page 4-8, Table 4-1

This table indicates Building NSC 45 has groundwater contamination above the MCL. Groundwater contamination would prevent this property transfer in this Phase II FOST. Please review all information and either correct this table or remove NSC 45 from the Phase II FOST.

25. Page 7-7, Section 7-3, Glossary of Terms, Line 37.

This paragraph provides a definition of "Release" and states in part, "Release. Any (unintentional) spilling, leaking, pumping, pouring, etc....." Please remove the word

unintentional.

Appendix

26. Facility 28, Volume 2

The Facility description did not address the detection of chlorinated solvents in the Zone I Grid well #11. Grid well #11 is located at the southern entrance of Wing 6 of this Facility and has consistently reported low levels of TCE above the MCL. The source of the chlorinated solvents has not been identified but may be related to the prior use of this portion of the Base as an Naval Air Station. Please review all information regarding this issue. Facility 28 may need to be removed from the Phase II FOST.

27. Facility M-1067, Volume 2

The description of this Facility mentions a washrack to the North of the Facility. A description of Facility 1116 states the "washrack (has been) on the premises of Facility M-1067 for more than fifty years". This is new information. It is not clear which facility this washrack should be associated with. Furthermore, there is no evidence this washrack has been investigated. Facility M-1067 should be removed from the Phase II FOST and the washrack should be investigated as a new AOC.

28. Facility M-1116, Volume 2.

The description of this Facility states that M-1116 was used by the Marines as a vehicle maintenance shop and that a maintenance pit was in use until 1990. This is new information. Furthermore, there is no evidence the maintenance pit or the maintenance shop has been investigated. Facility M-1116 should be removed from the Phase II FOST and the maintenance pit and maintenance shop investigated as two new AOCs.

29. Facility M-3A, Volume 3.

The description of this Facility states that M-3A was used by the Marines as a multi-vehicle garage and maintenance shop. This is new information. Furthermore, there is no evidence the garage or the maintenance shop has been investigated. Facility M-3A should be removed from the Phase II FOST and the garage and maintenance shop investigated as a new AOC.

30. Facility NH-21, Volume 3.

This description states that this Facility was identified as AOC 510 and that the SCDHEC granted a NFA. This description also states that the Facility contains a caustic tank and an OWS

which were assessed as part of AOC 510. This is new information that has not been presented before and was not a part of the NFA decision making process. A review of the June 6, 1995 RFA, the January 1996 Draft RFI Report and the November 1997 RFI Report all fail to describe a caustic tank or an OWS and these were not included in the site evaluation. Solvents methylene chloride and acetone, both used in the building were detected in soils but were not addressed in the Final RFI and the two monitoring wells appear to be upgradient of the facility. Based upon the new information the Department will have to reevaluate the NFA decision for AOC 510. Additional assessment may be required. Facility NH-21 should be removed from the Phase II FOST.



**Water Monitoring, Assessment & Protection Division
Groundwater Quality Section**

Phone (803) 898-3553 Fax (803) 898-3795

Memo

To: Keith Collinsworth, EQC Federal Facilities Liaison
From: Michael Bishop, Hydrogeologist
Date: May 18, 2001
Re: Comments for Charleston Naval Complex Phase II Parcels FOST

Comments for FOST are as follows:

VOLUME I

Page ES-1 (volume I) states that properties in categories 5-7 are unsuitable for transfer. Line 9 of page ES-2 states that there are no facilities assigned property categories 5-7. According to Table 3-4 (pages 3-14 – 3-19) there are 27 sites listed as being in category 5-7. Page 4-1 line 32 again states no properties were identified within property categories 5-7. Why the discrepancy?

Line 12/13 on page 3-12 states that a program to locate and remove all USTs in currently ongoing. Can the properties be transferred if environmental investigations are incomplete? Why?

Facility 4 - Navy acknowledges UST was present at some point at this facility. No investigation has been conducted. When will an investigation be completed? Property is listed as Category 7 "unsuitable for transfer".

Facility 7 - Navy acknowledges UST was present at some point at this facility. No investigation has been conducted. When will an investigation be completed? Property is listed as Category 7 "unsuitable for transfer".

Facility 191- investigation of UST ongoing, property listed as category 5 "unsuitable for transfer".

Facility 193 – line 19 lists the AST for the compressor at 50 gallons; line 32 lists the same AST at 200 gallons. There is no documentation of a closure report or investigation of the former 1500K UST. When

will an investigation be completed? Property is listed as Category 7 "unsuitable for transfer".

Facility 327 – the report indicates that two 12000K trailers for oily waste storage were located at this pier in the past. The report does not indicate what, if any, investigations were conducted to determine if any contamination was associated with these structures.

Facility 337 & 1862 – according to the report "a number of oil spill were noted at the 500, 600 and 800 block on the upper level of the pier". The report does not indicate the size and number of these spills or if they were assessed and/or remediated.

Facility 700 - Navy acknowledges UST may have been present at some point at this facility. No investigation has been conducted. When will an investigation be completed? Property is listed as Category 7 "unsuitable for transfer".

Facility 701 – it is noted that a fuel oil AST is still present at this facility. According to the report the AST is no longer in use. Does this AST still contain product? Will an environmental assessment be conducted?

Facility 705 – A former heating oil UST was investigated at this site and issued an NFA in June 1999. The report notes that two monitoring wells are still in existence near the former UST, will these wells be abandoned?

Facility 706 - Navy acknowledges UST may have been present at some point at this facility. No investigation has been conducted. When will an investigation be completed? Property is listed as Category 7 "unsuitable for transfer".

Facility 708 - it is noted that a fuel oil AST is still present at this facility. According to the report the AST is no longer in use. Does this AST still contain product? Will an environmental assessment be conducted?

Facility 712 - Navy acknowledges UST may have been present at some point at this facility. No investigation has been conducted. When will an investigation be completed? Property is listed as Category 7 "unsuitable for transfer".

Facility 717 – report notes that an AST was present at this site at one time. What if any assessment was conducted concerning this AST?

Facility 743, 744, 745, 746, 747, 748, 749, 750, and 751 - these residences were constructed in 1963. Based on similar structures constructed around this time it would be expected that a fuel oil UST or AST be associated with this structure. On what information does the Navy base the statement that neither a UST nor AST existed at this site?

Facility 769 - Navy acknowledges UST may have been present at some point at this facility. No investigation has been conducted. When will an investigation be completed? Property is listed as Category 7 "unsuitable for transfer".

Facility 777 - Navy acknowledges UST may have been present at some point at this facility. No investigation has been conducted. When will an investigation be completed? Property is listed as Category 7 "unsuitable for transfer".

VOLUME II

Facility 780 - Navy acknowledges UST may have been present at some point at this facility. No investigation has been conducted. When will an investigation be completed? Property is listed as Category 7 "unsuitable for transfer".

Facility 781 - Navy acknowledges UST may have been present at some point at this facility. No investigation has been conducted. When will an investigation be completed? Property is listed as Category 7 "unsuitable for transfer".

Facility 782 - Navy acknowledges UST may have been present at some point at this facility. No investigation has been conducted. When will an investigation be completed? Property is listed as Category 7 "unsuitable for transfer".

Facility 1271 - the report notes that POL products were utilized at this site in the past and that no indications of any release were observed. What assessment method was utilized to reach this conclusion?

Facility 198/1420 - has the 2000K diesel AST been assessed?

Facility 28 - The UST investigation is ongoing at this facility. What are the plans to assess the ASTs?

Facility 682/683 - Has the former AST at this facility been assessed?

Facility 760 NH-D/1418/1413 - this facility has documented UST contamination and assessment/remediation is ongoing. Can this property be transferred? Why?

Facility M-10 - Navy acknowledges UST may have been present at some point at this facility. No investigation has been conducted. When will an investigation be completed? Property is listed as Category 7 "unsuitable for transfer".

Facility M-1607 - was the former vehicle maintenance pit ever investigated? Was a waste oil UST/AST present?

Facility M-11 - Navy acknowledges UST may have been present at some point at this facility. No investigation has been conducted. When will an investigation be completed? Property is listed as Category 7 "unsuitable for transfer".

Facility M-1136 - Was the former UST at this facility ever investigated? Property is listed as Category 7 "unsuitable for transfer".

VOLUME III

Facility M3-A - report indicates that this was a vehicle maintenance area. Was a

waste oil UST/AST associated with this facility?

Facility M-5 – has the AST been assessed?

Facility M-82 – was a closure report submitted for the AST at this location?

Facility NH1137 & NH-60 – UST contamination is documented at this site and remediation is ongoing. Can this property be transferred? Property is listed as Category 5 “unsuitable for transfer”.

Facility NH-21 – line 31/32 page 1 states that there were fuel oil releases associated with this facility (this is verified by the BOW database). However, line 11/12 page 3 states that there were no releases. Property is listed as Category 7 “unsuitable for transfer”.

Facility NH-45 – How was heat supplied to this building?

Facility NH-46 – AST remediation and UST investigation is ongoing. Can this property be transferred? Why? Property is listed as Category 5 “unsuitable for transfer”.

Facility NH-47 – How was heat supplied to this building?

Facility NH-45 - How was heat supplied to this building?

Facility NH-49 - How was heat supplied to this building?

Facility NH-50 – Line 11/12 page 1 states that a 150-gallon AST was located at this site. Line 21/22 page 2 states that no ASTs existed? Has the AST been assessed?

Facility NH-51 - How was heat supplied to this building?

Facility NH-52 - How was heat supplied to this building?

Facility NH-53 - How was heat supplied to this building?

Facility NH-54 - How was heat supplied to this building?

Facility NH-55 - How was heat supplied to this building?

Facility NH-61 - How was heat supplied to this building?

Facility NSC-45 – How was the AST at this site assessed?

Quarters F/1427 – was a closure assessment conducted on the fuel oil UST? Property is listed as Category 7 “unsuitable for transfer”.

Quarters A – has the AST been assessed?

Quarters N – have the assumptions concerning the AST at this site been confirmed?

Quarters O - UST investigation is ongoing. Can this property be transferred? Why? Property is listed as

Category 5 "unsuitable for transfer".

Quarters S - UST investigation is ongoing. Can this property be transferred? Why? Property is listed as Category 5 "unsuitable for transfer".

Quarters Z - when will the UST located beneath the concrete floor be assessed? Property is listed as Category 7 "unsuitable for transfer".