

M00263.AR.000160
MCRD PARRIS ISLAND
5090.3a

LETTER REGARDING SOUTH CAROLINA DEPARTMENT OF HEALTH AND
ENVIRONMENTAL CONTROL COMMENTS ON DRAFT FEASIBILITY STUDY/CORRECTIVE
MEASURES STUDY FOR SITE 3 CAUSEWAY LANDFILL MCRD PARRIS ISLAND SC
1/26/2000
SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL



2600 Bull Street
Columbia, SC 29201-1708

19.01.03.0006

Doc ID 165

January 26, 2000

Commanding Officer
Department of the Navy
SOUTHNAVFACENGCOM
ATTN: Mr. Art Sanford
2155 Eagle Drive
North Charleston, South Carolina 29406

RE: Draft Feasibility Study/Corrective Measures Study for Site/SWMU 3- Causeway
Landfill (11/99)
Marine Corp Recruit Depot
Parris Island
SC6 170 022 762

Dear Mr. Sanford:

The Corrective Action Engineering and the Hydrogeology Sections of the South Carolina Department of Health and Environmental Control (Department) have completed the review of the above referenced document, which was received on November 15, 1999. The Department has determined that the following comments must be adequately addressed prior to receiving final approval:

1. **General:** The RFI for SWMU 3 states that human exposure to surface water is minimal due to the presence of alligators. If so, the maintenance of these alligator postings must be incorporated as an institutional control.
2. **General:** Please incorporate Tables and Figures throughout the document as referenced rather than placing them at the end of each section. This will facilitate the review of future documents and result in a more expedited review.
3. **Page ES-1:** Please provide documentation that the northeast portion of the causeway landfill was comprised primarily of fill dirt rather than waste material.
4. **Page 3-4, Table 3-1:** Table 3-1 identifies RCRA Subtitle C as an ARAR; however, it seems as though the Hazardous and Solid Waste Amendments to RCRA should also be identified as an ARAR. HSWA is the instrument, which provided RCRA with corrective action authority. Please make this revision or explain why HSWA is not applicable as an ARAR.

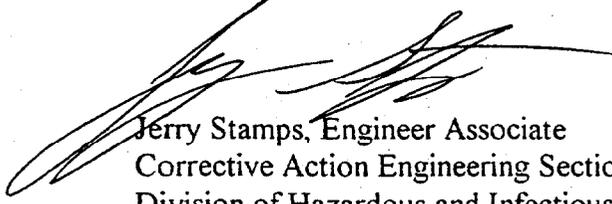
5. **Table 3-5:** Please explain why 4,4-DDT was not retained as a COC since its maximum concentration exceeded the ILCR of 10^{-6} for fish ingestion. The Department considers a COC to be any constituent contributing to a cumulative risk level of 10^{-6} or greater and/or a cumulative hazard index above 1.0, and whose individual ILCR exceeds 10^{-6} or whose hazard quotient exceeds 0.1. Additionally, please discuss the source of the "Background Typical Facility Pesticide Concentration". Are the concentrations listed obtained from background sediment locations, or were they obtained from background soil locations? If the latter is true, then the background results may not be directly comparable to the sediment sampling results, as the comparison of analytical results from differing media is not appropriate. This may alter the elimination of DDT as an ecological COC as listed in Table 3-6.
6. **Table 3-6:** Aluminum must be retained as an ecological COC. The food chain modeling presented in Tables 7-9 through 7-14 of the RFI indicate HQs much greater than 1.0. Consequently, aluminum appears to be a risk driver and as such must be retained as an ECOC. Additionally, for those constituents not selected as ECOCs, please indicate the basis for that determination. Please do the same for the sediment COCs listed in Table 3-5.
7. **Table 3-8:** Please explain why the RGO values corresponding to 10^{-5} and 10^{-6} risk do not simply differ by an order of magnitude. Were the inherent assumptions utilized in calculating these RGOs different?
8. **Section 4:** It is stated that the institutional controls are to be incorporated into the master work plan. However, page 4-15 references the use of "deed restrictions". Is there truly a deed for the Parris Island property? Are these two methods to be used in conjunction as a means of documenting ICs? Furthermore, it seems as though a LUCAP/LUCIP must be developed as a mechanism for documenting and enforcing the ICs.
9. **Figure 4-1 and 4-2:** These figures should address the incidental excavation of sediments and the management of said sediments for alternatives 2a and 2b.
10. **Section 5:** As stated, all trees and shrubbery that will penetrate or obstruct the installation of the cover must be removed from the causeway landfill.
11. **General:** Please ensure that all necessary permits are obtained prior to excavating the wetland areas, if applicable.
12. **Figure 5-5:** The Department believes that the causeway landfill is one contiguous unit and must be closed as such. Consequently, a 2-foot cover consisting of clean fill must be applied to the entire length and width of the landfill. Additionally, measures must be implemented to maintain the integrity

of the cover including, but not limited to, preventing erosion of the cover.

13. **General:** Given the plans to construct a road on top of an approved corrective measure, the Department must review and accept the work plan outlining the construction details prior to the construction of the road. This is necessary so that the Department can ensure that the integrity of the corrective measure is maintained during and after construction activities.
14. **General:** The existing monitoring wells must be extended to the new elevation resulting from the installation of the cover. Alternately, the wells may be abandoned in accordance with R.61-71: South Carolina Well Standards and Regulations and reinstalled at adjacent locations.
15. **Page 5-7, 2nd paragraph:** The Department has reservations about placing contaminated sediment back onto the landfill as part of the soil cover or otherwise. The Department would like to discuss this issue in the February Tier I meeting.
16. **Page 5-7, Institutional Controls and Long Term Monitoring:** LTM must include monitoring of sediment, surface water, and groundwater, rather than solely groundwater monitoring. Please revise accordingly. A detailed LTM plan should be incorporated into the CMS including sampling frequency and a list of analytes to be monitored. The location of the surface water and sediment samples should be determined prior to each sampling event. Additionally, a contingency plan should be included to address what actions will be taken should the LTM reveal additional contamination resulting from further releases. These actions should include further investigation to determine if the landfill is truly the source of this contamination.
17. **General:** As outlined in OSWER Directive 9902.3-2A (RCRA Corrective Action Plan), dated May 31, 1994, the Corrective Measure Study should recommend a proposed remedy. Please revise accordingly.

If you have any questions or concerns, please feel free to contact Jerry Stamps at (803) 896-4285 or Don Hargrove of the Division of Hydrogeology at (803) 896-4033.

Sincerely,



Jerry Stamps, Engineer Associate
Corrective Action Engineering Section
Division of Hazardous and Infectious Waste Management

cc:

David Brayack, TtNUS
Tim Harrington, MCRD Parris Island
Don Hargrove, Hydrogeology
Ken Lapierre, EPA Region IV
Robert Pope, EPA Region IV
Tom Dillon, NOAA
Priscilla Wendt, SCDNR