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LETTER OF TRANSMITTAL AND SOUTH CAROLINA DEPARTMENT OF HEALTH AND  
ENVIRONMENTAL CONTROL COMMENTS ON REMEDIAL INVESTIGATION WORK PLAN  
FOR SITE 27 MCRD PARRIS ISLAND SC

6/8/2007

SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL



C. Earl Hunter, Commissioner

*Promoting and protecting the health of the public and the environment.*

June 8, 2007

Commanding Officer  
NAVFAC Southeast  
ATTN: Mr. Art Sanford  
2155 Eagle Drive  
North Charleston, South Carolina 29406

RE: Remedial Investigation Work Plan Site 27  
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 February 2007. Based on this review, the Department has comments. Please refer to the attached memorandum from Don Hargrove.

If you have any questions or concerns, please feel free to contact me at (803) 896-4218.

Sincerely,

Meredith Amick, Environmental Engineer Associate  
Corrective Action Engineering Section  
Division of Waste Management

cc:

Tim Harrington, MCRD Parris Island  
Don Hargrove, Hydrogeology  
Priscilla Wendt, SCDNR  
Russell Berry, EQC Region 8, Beaufort

Lila Llamas, EPA Region 4  
Tom Dillon, NOAA  
Mark Sladic, TtNUS



2600 Bull Street  
Columbia, SC 29201-1708

## MEMORANDUM

TO: Meredith Amick, Engineering Associate  
Corrective Action Engineering Section  
Division of Hazardous and Infectious Waste Management  
Bureau of Land and Waste Management

FROM: Donald C. Hargrove, Hydrogeologist *Donald C. Hargrove*  
RCRA Hydrogeology Section 1  
Division of Hydrogeology  
Bureau of Land and Waste Management

DATE: 7 June 2007

RE: Parris Island Marine Corps Recruit Depot (MCRD)  
Parris Island, South Carolina  
Beaufort County  
SC 6170 022 767

### Remedial Investigation Work Plan, Site 27

(February 2007)

The Division of Hydrogeology has reviewed the Document listed above, dated 22 February 2007. It provides a physical description of the Solid Waste Management Unit (SWMU) 27, which includes the history of the SWMU. It briefly describes previous studies performed at the SWMU and indicates that the previous studies suffer from outdated information and/or data gaps. This work plan proposes a sample strategy to fill the data gaps in order to fully characterize the nature and extent of contamination at SWMU 27.

This document was reviewed with respect to R.61-79 of the South Carolina Hazardous Waste Management Regulations (SCHWMR), and appropriate guidance documents. Based on this review the following comments should be addressed and a revised document submitted:

- 1) Sections 2.2.1, and 2.5.3: There are references to having screened against the EPA Region 9 PRGs under an industrial-use scenario in the past, and proposing to do the same for the upcoming investigation. The NAVY should be made aware that screening to an industrial-use scenario is not appropriate. The analytical results

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should be screened against a residential-use scenario. The text should be revised, specifying that the analytical results will be screened against the EPA Region 9 PRGs, under a residential-use scenario. Risk-management decisions will be made after this initial comparison has been performed and documented.

- 2) Appendix A.2, Groundwater Screening Data for Site 55, Pages 1 and 2: The results listed for benzene, as well as some of the associated qualifiers, are confusing. Benzene is reported at 350 µg/L for FOVGFB, 1210. The result is J qualified as an estimated value-less than PQL. The PQL is listed as 5 µg/L. The data referenced, was reported in an earlier document. Questions concerning qualifier use are intended to apply to future documents. No revision to this work plan is necessary here. However, the questions that arise are as follows:

- A) The use of appropriate qualifiers is necessary in order to get a final decision for a site. Reporting limits (RLs) and/or method detection limits (MDLs) are considered appropriate when they are less than the Maximum Concentration Limit (MCL) for a given constituent. It is acknowledged that sometimes the laboratory must use an elevated RL. When this happens, it is incumbent upon the laboratory, and ultimately the facility to explain why the elevated RL had to be used, how the data was affected, and why the data should still be considered credible. In the absence of such discussion, no final determinations will be made. In the case of benzene reported at 350 J µg/L, further explanation concerning the J flag is needed. Site 27 is already planned for investigation. So it would not be prudent to spend a lot of time explaining qualifier use on old data. However, this comment should be applied to the report(s) culminating from this work plan.
- B) What was the MDL for benzene during these analyses? Is the MDL less than the MCL for benzene?
- C) The previous comment would be adequately addressed by including discussion in a Quality Control Summary Report (QCSR), as a section of, or appendix to, the resulting RI Report.
- D) When a dilution is indicated (as is the case with Benzene in FOVGFB 0412), normally, a second analytical result is presented. The dataset includes the dilution factor, but does not elaborate on data credibility. Again, this can be cleared up in a QCSR.

- 3) Appendix A.3, July 2003 Groundwater Data for Site 55, Page 2 of 8: The RL for VC (5µg/L) exceeds the MCL (2µg/L). MCRD should again be reminded to use appropriate qualifiers, or explain why the elevated RL was used.

- 4) Appendix B.2, Field Forms: The Typical Monitoring Well Sheets are assumed to

eventually be submitted with the as-built construction details for all of the permanent monitoring wells that will be installed during the execution of this work plan. Neither the text in the work plan, nor these field forms, contain the specific construction details about the concrete pad. R.61-71R.61-71.H.3.b (5), of the South Carolina Well Standards, requires “...**A cement or aggregate reinforced concrete pad at the ground surface of appropriate durability and strength, considering the setting and location of each well, that extends six inches beyond the borehole diameter and six inches below ground surface is required. The pad shall be capable of preventing infiltration between the surface casing and the borehole to the subsurface.**”

This information should either be specified in the text of the document, on these well reporting forms, or both.

The following specification would be sufficient: the dimensions of the concrete pad will be two feet by two feet, and the pad will extend six (6) inches below ground surface (bgs).

If you have any questions regarding these comments, please call me at (803) 896-4033.