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MCRD PARRIS ISLAND
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LETTER OF TRANSMITTAL AND SOUTH CAROLINA DEPARTMENT OF HEALTH AND
ENVIRONMENTAL CONTROL COMMENTS ON DRAFT FINAL REMEDIAL ACTION WORK
PLAN FOR SOIL AND SEDIMENT REMOVAL AT SITE 12 MCRD PARRIS ISLAND SC
9/6/2005
SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL



C. Earl Hunter, Commissioner

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

September 6, 2005

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

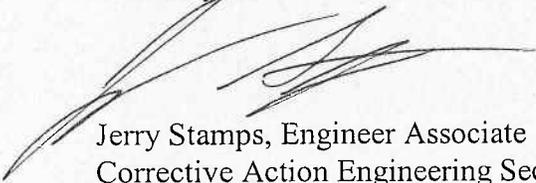
RE: Draft Final Remedial Action Work Plan, Soil and Sediment Removal at Site 12 / SWMU 10
(8/05)
Marine Corp Recruit Depot
Parris Island
SC6 170 022 762

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 August 5, 2005. The Department has determined that the attached comments must be adequately addressed prior to receiving a final determination regarding the above referenced document.

If you have any questions or concerns, please feel free to contact me 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 Waste Management

Attachment:

Memorandum from Don Hargrove to Jerry Stamps dated September 1, 2005

cc:

Mark Sladic, TtNUS
Tim Harrington, MCRD Parris Island
Don Hargrove, Hydrogeology
Lila Llamas, EPA Region IV

Priscilla Wendt, SCDNR
Tom Dillon, NOAA

ENGINEERING COMMENTS
Prepared by Jerry Stamps
Marine Corps Recruit Depot (MCRD)
August 30, 2005

1. Section 1.2
This section describes Figure 1-2 as identifying the extent of the surface debris; however, Figure 1-2 seems to show the general location of Jericho Island relative to the rifle range. Please clarify.
2. Section 1.3
This section should reference the RI/RFI conducted at Site 12 / SWMU 10 as well.
3. Section 8.2.2
This section states "Excavation area delineation will be performed...". The text should clarify if this delineation will be based upon visual inspection of the debris, chemical analysis, or both.
4. Section 8.2.3, 3rd paragraph
The text should explain why TCLP analysis is limited to Area 3. Also, please include a figure clearly identifying the individual areas of excavation.
5. Section 8.2.4
Please see the comments from the Division of Hydrogeology regarding well abandonment.
6. Section 8.2.6, 4th paragraph
Please explain how the corncob additive will be added to the waste. Will it be added prior to loading the waste onto the truck or will it be mixed in the truck bed? If added prior to loading, will there be a separate area designated for adding corncob additive to the waste?
7. Section 8.2.8
Please add SCDHEC in the concurrence process for determining if clean up objectives have been achieved. Also, please include a timeframe for which such concurrence is anticipated to be received from the regulatory agencies.
8. Section 8.4, 3rd paragraph
This section states that "Each source of fill will be analyzed prior to its delivery to the site". As stated in Section 8.7.2, the sand bags to be used as a temporary dam will be broken and used as backfill. Please clarify if these sandbags will also be analyzed prior to being used as backfill.

9. Section 8.4, 5th paragraph
Please coordinate with SCDHEC as well as the EPA and ROICC for the soil confirmation sampling effort.

10. Section 8.7.1
The marsh restoration was discussed in a teleconference, held on August 30, 2005, which included representatives from the Navy, Marines, Navy contractors, SCDHEC, EPA, SCDNR and NOAA. The Department expects that that the approach discussed in this teleconference will be followed.



2600 Bull Street
Columbia, SC 29201-1708

MEMORANDUM

TO: Jerry Stamps, Engineering Associate
Corrective Action Engineering Section
Division of Waste Management
Bureau of Land and Waste Management

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

DATE: 1 September 2005

RE: Parris Island Marine Corps Recruit Depot (MCRD)
Parris Island, South Carolina
Beaufort County
SC6 170 022 762

DRAFT FINAL Removal Action Work Plan, Jericho Island, Site12/SWMU 10
(August 2005)

The Division of Hydrogeology has reviewed the document listed above. This document (dated August 2005) was received by the Department on 5 August 2005, and by this reviewer on 17 August 2005. It provides a physical description of Solid Waste Management Unit (SWMU) 10, and includes the history of this SWMU. Also, it briefly describes previous studies performed at SWMU 10, and provides details concerning the fieldwork involved during the implementation of the approved remedy for SWMU-10.

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 Division of Hydrogeology has determined that this document is technically inadequate. It should be revised to incorporate the following comments, and resubmitted for review:

- 1) Section 8.2.4, Monitoring Well Abandonment:
 - A) This section contains an old regulation citation. R.61-71.H.2.e, of the South Carolina Well Standards, as amended April 26, 2002, is the correct citation concerning well abandonment. The text should be revised accordingly.
 - B) This section further states that the wells will be filled with sand or gravel to within

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twenty feet of the surface and the remainder will be filled with cement grout only. R.61-71.H.2.e specifies "Abandonment shall be by forced injection of grout or pouring through a tremie pipe starting at the bottom of the well and proceeding to the surface in one continuous operation. The well shall be filled with either with neat cement, bentonite-cement, or 20% high solids sodium bentonite grout, from the bottom of the well to the land surface." The text should be revised to specifically comply with R.61-71.H.2.e.

2) Section 8.2.7, Groundwater Sample Collection:

A) The specifications for the abandonment of the temporary monitoring wells is not adequate. Again, this reviewer refers to the South Carolina Well Standards. Specifically, R.61-71.H.3.f states "...Direct Push Wells that do not penetrate a confining layer shall be abandoned by removing all casing from the subsurface and be grouted by forced injection through a tremie pipe from the total depth to the land surface, or by forced injection or pouring of neat cement, bentonite-cement, or 20% high solids sodium bentonite grout through a tremie pipe starting at the bottom of the well and proceeding to the surface in one continuous operation." The text should be revised accordingly. It should also be noted that the abandonment requirements in R.61-71 cover most situations that could be encountered at MCRD, facility-wide. It is recommended for future reference that MCRD, its contractors, and subcontractors, review and be knowledgeable of, the South Carolina Well Standards and Regulations, R.61-71. The Division of Hydrogeology is eager to answer any questions MCRD has regarding this issue. The following web link is provided for further reference: http://www.scdhec.gov/eqc/water/regs/r61-71.doc#_Toc535827200.

B) This section does not specify purging prior to sampling groundwater. The text should be revised to specify that after deploying the Geoprobe to the target sample dept, each well will be purged prior to sampling. The purge procedure should reference the pertinent section of the Master Work Plan (Volume II), or state the specific purging procedure that will be followed, as well as specify the logging and required reporting of every well purged. The necessity for proper purging prior to sampling is due to the method of groundwater collection. DPT samples can have turbidity issues, and thus metals analyses may be biased high. Purging until turbidity has stabilized is one method of minimizing uncertainties associated with metals analyses.

3) Field Sampling Plan, Appendix A, Section 5.4, Post-Removal Site Verification Groundwater Sampling: The method of abandonment of the temporary wells (Geoprobes) is not acceptable. R.61-71 does not allow for the use of pure bentonite during abandonment. This section should be revised to specify that the wells will be abandoned by forced injection of grout, consisting of neat cement, bentonite-cement, or 20% high solids sodium bentonite grout through a tremie pipe starting at the bottom of the well and proceeding to the surface in one continuous operation.

- 4) It is not specified in this Field Sampling Plan that MCRD must obtain a monitoring well approval (MWA) prior to collecting the groundwater samples proposed. MCRD should be made aware that if the specific well locations are proposed in this document, and that the specific construction details presented are acceptable, an MWA will be written at the time of approval of this work plan. Otherwise, a separate MWA request must be submitted, and an MWA obtained, prior to installing the temporary monitoring wells discussed. This separate request must include the specific numbers and locations of the proposed wells, the construction/abandonment details, and the time frame for groundwater sampling.

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