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MCRD PARRIS ISLAND  
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LETTER AND THE SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL  
CONTROL REVIEW AND COMMENTS REGARDING THE DRAFT WORK PLAN PILOT TEST  
AT SITE 45 MCRD PARRIS ISLAND SC

02/28/2014

SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL



Catherine B. Templeton, Director

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

February 28, 2014

Commanding Officer  
NAVFAC Southeast  
ATTN: Mr. Dan Owens  
PO Box 30  
Ajax Street North, Bldg 135  
Jacksonville, Florida 32212

and

Commanding General  
NREAO  
ATTN: Mr. Tim Harrington  
PO Box 5028  
Parris Island, SC 29905

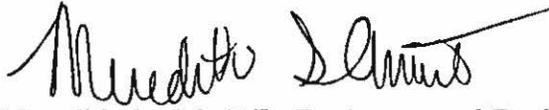
RE: Comments to Draft WP Pilot Test at Site 45  
Marine Corp Recruit Depot (MCRD)  
Parris Island  
SC6 170 022 762

Dear Mr. Owens and Mr. Harrington:

The Division of Waste Management of the South Carolina Department of Health and Environmental Control (Department) completed the review of the above referenced document received December 13, 2013 and change pages received February 5, 2014. Based on our review, the Department has comments. Because the work is proceeding at risk please account for these comments in the field; however, please include responses and necessary notation in the report following the work.

The Department's review is based on the information presented by MCRD to date; any information found to be contradictory may require further action. If you have any questions regarding this issue, please contact me at (803) 898-0368.

Sincerely,

A handwritten signature in black ink, appearing to read "Meredith Amick". The signature is fluid and cursive, with a long horizontal stroke extending from the end of the name.

Meredith Amick, P.E., Environmental Engineer  
DOD Corrective Action Section  
Division of Waste Management

cc:

Lila Llamas, EPA Region 4  
Annie Gerry, Hydrogeology  
Priscilla Wendt, SCDNR

Russell Berry, EQC Region 8, Beaufort  
Peggy Churchill, TiNUS

Engineering Memo  
Prepared by Meredith Amick  
Marine Corp Recruit Depot (MCRD)  
February 19, 2014

1. For future reference, the Department prefers only to see a SAP (not a work plan and a SAP).
2. For this review the Department assumes that the changes made in the change pages for the work plan received February 5, 2014 also apply to the SAP in Appendix B.
3. Due to the fluid nature of Site 45 due to the resolution of the dispute, the Department's review only reflects our comments to this pilot test field mobilization and post pilot test monitoring.
4. Prior to mobilizing, a well installation approval and an injection approval should be requested by the Navy from the Department.
5. Section 2.2.3  
The Department feels that additional screening and/or analysis should be performed on the soil surrounding the storm sewer because of concern about a preferential pathway in this area. This screening and/or analysis could be different technology such as using a Membrane Interface Probe and/or taking actual samples from the boring that is proposed to be scanned with a PID. The Partnering Team should discuss this further prior to field mobilization.
6. Section 2.2.8  
The Department recommends sampling wells and storm sewer manholes at low tide to reduce the influence of tidal fluctuation on analyte concentrations.
7. Please provide disposal manifests generated from this field mobilization in the upcoming report.
8. The Department appreciates the Navy proposing to analyze the storm sewer manholes for injection substrate parameters as this has been a documented concern of the Department (Amick to Cook and Donohoe 10/23/12 and Amick to Owens and Donohoe, 1/28/ 13).



Catherine B. Templeton, Director

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## MEMORANDUM

**TO:** Meredith Amick, P.E.  
Department of Defense Corrective Action Section  
Division of Waste Management  
Bureau of Land and Waste Management

**FROM:** Annie M. Gerry, Hydrogeologist   
Department of Defense Corrective Action Section  
Division of Waste Management  
Bureau of Land and Waste Management

**DATE:** February 27, 2014

**RE:** Marine Corps Recruit Depot  
SC6 170 022 762

Review of **Draft Work Plan – Pilot Test at Site 45, Former MWR Dry Cleaning Facility**, Marine Corp Recruit Depot (MCRD), Parris Island, South Carolina dated December 2013

The above referenced document has been reviewed with respect to the conditions of the Federal Facility Agreement (FFA) that the Department entered into with the Navy and EPA Region 4 in January 2005. Site 45 is a former dry cleaner where in March 1994, a tetrachlorethene (PCE) spill of unknown quantity was released into soil near the above ground PCE storage tanks in the northern portion of Site 45. A new dry cleaning facility was constructed in 1997, and operations were switched to a non-hazardous hydrocarbon-based cleaner in place of PCE. However, in 2005, a second groundwater plume of chlorinated solvents was discovered near the new dry cleaner. The two plumes of contaminated groundwater are intermingled. The pilot study will be evaluating enhanced in situ bioremediation of chlorinated solvents in the two plumes.

Based on review of this work plan, the following comments have been generated:

### COMMENTS

1. **Section 2.2.4 Installation of Injection Wells-** A total of nine (9) injection wells are proposed in this work plan. Please be advised that injection permits will be required from Chris Wargo in our Bureau of Water before installation.

2. The Department has documented concerns (Amick to Cook and Donohoe, 8/9/11) about the injections causing plume migration east of the storm sewer. Since this is a concern, the Department is requesting that monitoring well PAI-45-MW16 be added to the sampling program.
3. **Section 2.2.8 Performance Monitoring-** Monitoring well, PMW-5, could not be located on the figures provided, and it appears that this well was incorrectly labeled and should be PMW-3. Please update the report denoting the correct monitoring well to be sampled.

Should you have any questions regarding this memo, please contact me via email at [GerryAM@dhec.sc.gov](mailto:GerryAM@dhec.sc.gov) or by phone at (803) 898-0359.