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LETTER OF TRANSMITTAL AND U S EPA REGION IV COMMENTS ON DRAFT WORK PLAN
FOR U S GEOLOGICAL SURVEY FISCAL YEAR 2007 FIELD ACTIVITIES AT SITE 45 DRY
CLEANING FACILITY SPILL AREA MCRD PARRIS ISLAND SC
5/17/2007
U S EPA REGION IV



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4**

**Atlanta Federal Center
61 Forsyth Street, SW
Atlanta, Georgia 30303-8960**

May 17, 2007

**CERTIFIED MAIL
RETURN RECEIPT REQUESTED**

4WD-FFB

Commander, Southern Division
Naval Facilities Engineering Command Southeast
OPCEVR (IPT-Central)
Attn: Mr. Arthur F. Sanford
Remedial Project Manager, MCRD Parris Island
2155 Eagle Drive
North Charleston, S.C. 29406

And

Commanding General
Marine Corps Recruit Depot
Attn: Timothy J. Harrington, NREAO
P.O. Box 5028
Parris Island, SC 29905-9001

SUBJ: EPA Review of the Draft (D1) Workplan for USGS Survey FY07 Field Activities at Marine Corps Recruit Depot, Parris Island, South Carolina, Site 45.

Dear Sirs:

The U.S. Environmental Protection Agency (EPA) has completed its review of the above referenced document. EPA understands the Navy / Marine Corps Recruit Depot (MCRD) is on a tight timeline to finalize this document. EPA has strived to structure these comments in a way that facilitates resolution in a timely manner. If you have any questions that would help you to resolve these comments more quickly, please do not hesitate to call me at (404) 562-9969.

Sincerely,

A handwritten signature in cursive script that reads "Lila Llamas".

Lila Llamas
Senior RPM

cc: Dave Scaturo, SCDHEC
Don Hargrove, SCDHEC
Mark Sladic, TtNUS

**EPA COMMENTS ON THE DRAFT WORKPLAN FOR
USGS SURVEY FY07 FIELD ACTIVITIES
AT MARINE CORPS RECRUIT DEPOT,
PARRIS ISLAND, SOUTH CAROLINA,
SITE 45**

I. GENERAL COMMENTS:

1. The comments have been prepared with the understanding that this Investigation Workplan (Workplan) has been submitted in response to the Parris Island Partnering Team's request made during a December 2006 team meeting. At the December 2006 meeting it was explained that this study will assist in the CERCLA/RCRA processes by filling data gaps with respect to the following tasks: investigate potential secondary source area at site 45 and further delineate contamination on the western side of the site; investigate the possible role preferential pathways (such as pipes, drains, etc.) may be playing at Site 45; gather additional info with respect to the appropriateness of MNA as a potential remedy in the southern plume area. The data collected through implementation of the work plan would be utilized to support development of the FS.
2. The depths below the ground surface (bgs) of potential subsurface drains such as sewer lines and other utilities which may affect the groundwater flow and contaminant distribution are currently unknown. The shallow aquifer zone at Site 45 is currently divided into a surficial upper zone which is normally screened between 7 and 9 feet bgs and surficial lower zone which is normally screened between 15 to 16 feet bgs. Due to the thickness of the shallow aquifer zone, the sewer lines and other utilities are more likely to reduce or alter contaminant transport rather than creating a groundwater barrier and preventing contaminant transport. If contaminant transport is being influenced by the sewer lines or other subsurface utilities, it is not known what impacts, if any this will have on the flux meter study that has been implemented in this area.
3. EPA is hereby requesting that data and findings be presented real-time to the Partnering Team for concurrence before installation of permanent wells, and before sentry well determinations are made. Additionally, final approval of the revised Workplan needs to be obtained prior to initiating any construction activities. (Also see Specific Comments below.)
4. A few places throughout this document reference "deeper wells" or "may need to be deeper". Please revise this document to limit depths to above the peat/clay confining layer.
5. Since the author of this document has stated that the samples taken within the scope of this document are intended to be used to indicate presence and/or potential absence and will be screening level type samples only, and are not to be used to imply compliance, EPA will not require a full sampling and analysis plan, for the sake of time. However, EPA is requesting that a section be added to the work plan to briefly describe, for the

public, the sampling approach for samples taken in pipes/drains, and a Standard Operating Protocol reference for samples to be taken from wells. In the future, a Sampling and Analysis Plan should be included when samples are being taken.

6. Also, for the sake of time, EPA has deferred many questions to the point of data sharing prior to permanent well placement, sentry well determinations, and the final report.

II. SPECIFIC COMMENTS:

1. Task 1: Role of sewer lines..., Justification:, Page 1

The text pertaining to Task 1 in the last sentence on Page 1 states "... if the sewer lines intercept the contaminated ground water and transport it laterally, then there is a potential that contamination may have been transported farther, resulting in as yet undetected contamination plumes." Although it may not be within the scope of this investigation, it should be noted that if the sewer lines are found to play a significant role in influencing groundwater flow and/or contaminant migration, additional investigation may be required.

2. Task 1: Role of sewer lines..., Approach:3, Page 2

The text in Approach: 3 indicates that selected sewer pipes will be examined by camera to identify probable areas where contaminants may have entered or exited the pipes. The text in Task 1, Page 1 states that "Substantial changes over a few hours in water levels at several wells near the sewer line and at the sewer imply that the sewer lines have a large influence on the water table, and therefore on the directions of water movement." Therefore, it would seem the activities identified for Approach: 3 need to be conducted at different times, as depth to groundwater varies, to adequately evaluate the integrity of the pipes and to identify probable areas where contaminants may have entered or exited the pipes. Please revise the Workplan to address this issue.

The text at the top of Page 2 states "...there is a potential that contamination may have been transported farther, resulting in as yet undetected contamination plumes." Also, in the text for Task 3 Approach: 1., it is stated on Page 4 "Because of the potential widespread and complex distribution of subsurface drains, it may not be possible, within the scope of this investigation, to identify all of the potential receptors." Please add steps or approaches as necessary to describe what *will* be identified, with respect to transport endpoints/exits, receptor identification, etc. *within* the scope of this investigation.

3. Task 2, Approach:, Page 2

Please add approach language pertaining to axis identification and sentry well appropriateness. Enumerate and segregate the approach language similar to the format used in the approach text of Task 1 and 2.

4. **Task 2, Approach: existing language, Page 2**

The last sentence on Page 2 regarding the probable sample depths and sampling interval is not clearly presented. The last sentence states "... probable depths will a four-foot sampling interval with the 10-ft interval from 5 and 15-ft depth." Revise the Workplan to clarify the text..

Figure 1 shows the approximate location of EPA's flux meter study wells. However, the text did not indicate the significance of the flux meter study wells or whether EPA HQ data from the Flux Meter study will be used for the proposed study. Revise the Workplan to clarify this issue.

5. **Temporary-well and MIP boring location and purpose, Item No.4, Page 5**

The text in Item No. 4. indicates the anticipated MIP boring depths will be from land surface to between 20- and 40-ft depths, depending and site specific findings. Based on the indicated depths, the peat/clay confining layer will be penetrated. Revise the Workplan to describe how the potential for cross contamination between the shallow aquifer and deep aquifer will be prevented during MIP boring installation.

6. **Permanent-well installation and sampling:, Page 5**

The well installation text on Page 5 indicates that there may be up to 3 sentry wells. Please explain what data will be used to determine the appropriateness of using well PAI-45-MW17-SL and others as sentry wells. EPA suggests that the data and findings be presented real-time to the Partnering Team for concurrence before installation of permanent wells for this purpose.

7. **Task 4: Deliverables, Page 6**

Please provide additional text to explain what a "Summary Report" is and what it might contain. Also, Task 4 was not included in the list in the Introduction.

8. **Figure 1., Page 7**

Please revise the figure to include existing well numbers and Tetra Tech's 2005 MIP borings on the figure.

9. **Schedule, Page 6**

Please include a project schedule in the revised Workplan.