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LETTER REGARDING SOUTH CAROLINA DEPARTMENT OF HEALTH AND
ENVIRONMENTAL CONTROL COMMENTS ON THE DRAFT SITE INVESTIGATION REPORT
FOR SITE 14 MCRD PARRIS ISLAND SC
9/14/2012
SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL



Catherine B. Templeton, Director

Promoting and protecting the health of the public and the environment

September 14, 2012

Commanding Officer
NAVFAC Southeast
ATTN: Mr. Charles Cook, P.E.
PO Box 30
Ajax Street North, Bldg 135
Jacksonville, Florida 32212

and

Commanding General
NREAO
ATTN: Ms. Lisa Donohoe
PO Box 5028
Parris Island, SC 29905

RE: Comments to Draft D1 Site 14 SI Report
Marine Corp Recruit Depot (MCRD)
Parris Island
SC6 170 022 762

Dear Mr. Cook and Ms. Donohoe:

The Division of Waste Management of the South Carolina Department of Health and Environmental Control (Department) completed the review of the above report received July 26, 2012. The Department reviewed the document with respect to applicable sections of the South Carolina Hazardous Waste Management Regulations (SCHWMR). Based on this review the Department has the following comments. Please see the attached engineering, hydrogeology, and risk assessment memoranda.

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) 896-4218.

Sincerely,

A handwritten signature in black ink, appearing to read 'Meredith Amick', with a long horizontal flourish extending to the right.

Meredith Amick, P.E., Environmental Engineer
Corrective Action Engineering 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, TtNUS

Engineering Memo
Prepared by Meredith Amick 
Marine Corp Recruit Depot (MCRD)
September 7, 2012

1. Please provide a table with data for each Process Area Outfall (PAO) compared to (a column for each) 2x mean Non Process Area Outfall (NPAO), minimum NPAO, maximum NPAO, and appropriate screening value (HH and Eco) for each analyte. Please shade analytes that exceed the 2x mean NPAO as well as the appropriate screening value.
2. Figure 2-2 lists Site 22 along with Site 45. This should be Site 32.
3. Page 4-2 Section 4.1.2
This section reads, "SWMU 32 (Site 45) included managed perchloroethylene...". Please note SWMU 32 and Site/SWMU 45 are two different SWMUs. Although it is the Department understanding that they are being addressed simultaneously, SWMU 32 is the Laundry SAA and SWMU 45 is the Dry Cleaning Facility.
4. Table 4-1
There appear to be discrepancies between the Site 14 SI SAP and the Site 14 SI Report as to which storm sewer outfalls were to be sampled. Please clarify/correct the discrepancies below:
 - Outfall 356 and 6173 were listed as "Proposed for Sampling" in the SAP and are listed as "No" under the "Proposed for Sampling" in the report.
 - Outfall 903, 923, and 608 DNF were listed as "No" under "Proposed for Sampling" in the SAP; however, in the Report they are listed as sampled.
5. Table 4-1
 - Outfall 6173 is listed on both page 2 and 4. Additionally 2 different rationales are presented for not sampling. Please clarify.
 - Page 5 lists Site 54 as "Horse Island Debris Area". SWMU 53 is the Horse Island Debris Area. SWMU 54 is the Old Waste Water Treatment Plan. Please correct the discrepancy.
6. Table 4-3
Outfall 881 is listed as not found during a site visit; however, it was sampled. Please clarify and correct this table.
7. Page 6-3 Section 6.1.2 Sediment
 - Please provide a better rationale to support the argument that Outfall 305 is truly a "Non Process Area" if it is considered an "Outlier".
 - It is assumed that the NPAO "pesticide outfall" that is considered an "Outlier" is Outfall 605. The values of pesticides detected in sediment are significant. Please discuss operations in the building that Outfall 605 drains, and if warranted provide further reasoning for still being a "Non Process Area Outfall."
8. If screening to industrial levels is used for decision making, Land Use Controls will be required.

9. Figure 6-1 through 6-4

Please discuss why NPAOs are compared to screening criteria as this was not the approach discussed in the Site 14 SAP.

10. Figure 6-3

Please discuss/explain the potential origin of the zinc exceedance in the 1-3 ft interval in the NPAO 758.

11. Figure 6-5

This map is labeled "PAO Ecological Screening of Metals in Sediment and Storm Water". However, the two left most tag boxes reference pesticides. Please correct the discrepancy.

12. Figure 6-6

- This map is labeled "PAO Ecological Screening of Pesticides and PCBs in Sediment and Storm Water." Data for some metals is listed on this map. Please correct the discrepancy.
- Please discuss the discrepancies between the Point 1 and Point 1 dup and the Point 2 and Point 2 dup at outfall 405 (both the sample values and why the dup was not sampled for all constituents).

13. Figure 6-9

Please clarify why further investigation of pesticides at Outfall 106 is not recommended.

14. Figure 6-12

Please discuss the discrepancies at Outfall 881 at Point 1 and Point 1 dup (both the sample values and why the dup was not sampled for all constituents). Also discuss the pesticides exceedances at Outfall 881 and why further investigation is not recommended.

15. Section 7.3

There is a significant discussion about acetone in this section. The following statement is made, "In addition, acetone concentrations in storm water samples from NPAOs tended to be higher than in samples from PAOs." Additionally it is discussed that acetone is found in approximately 1/3 of both PAOs and NPAOs. Please screen acetone as all other constituents, refer to comment #1. Additionally if acetone is found in the blank, the EPA guidance of 10 times the blank rule can be used to screen.

16. Section 7.4

Please clarify why sample concentrations are being compared to PELs. Additionally clarify if this comparison will affect the analyte list for future sampling. (For example at Outfall 358 vanadium, a potentially site related constituent, is above human health and ecological screening; however, it is not above its PEL. Additionally it appears that vanadium is not recommended for further analysis at Outfall 358.) This may affect other sections of the report.

17. Section 7.6.2.3

Please clarify the definition of "statistical analysis". (ie 2x mean, or does this include the later discussed Slippage and Quantile tests) This term is used in most outfall discussions in this section. Additionally this section is confusing as one sentence says constituent

“ABC” is considered a COPC; however, the next sentence states, “ABC” shouldn’t be considered a COPC.

18. Section 8.1 Page 8-4 Outfall 592

For the Department to determine if PAHs and pesticides are site related, please better explain the CSM for Site 39. Additionally please provide rationale for the presence of PAHs and pesticides at this Outfall.

19. Section 8.1 Page 8-5 Outfall 881

This section states, “Arsenic in sediment and surface water...”. Please note this should say storm water not surface water.

20. Section 8.2

- Please note that although constituents found in storm water and sediment may not be related to Sites 39 and 48, this does not mean that no further investigation is required for Sites 39 and 48 at the potential source area in the future.
- It should not be stated that “No site investigations are recommended at this time.” Most of the sites listed are in the investigation stage of the CERCLA process and this should be noted.
- Please clarify what is meant by “an upgradient investigation of the outfall piping...”(i.e further outfall investigation under Site 14 or further site investigations for Site 46 and 47). Please note that Sites 46 and 47 source areas may be required to be investigated in the future.
- Please clarify if the additional investigation of Site 54 will be conducted as part of Site 14 or as an RI at Site 54.
- Please note that in the future the potential pathway and up gradient source areas discussed in this section will need to be investigated under CERCLA even though the document states, “No site investigations are recommended at this time.”
- Please note the Department recommends doing further Site 14 investigation under an Expanded SI. If the Expanded SI recommends further investigation of outfalls, the Department believes that the outfalls should then be tied to their related Site(s) and follow the CERCLA process under that Site number.

21. The investigation at Site 54 should include discussion of the origin of the TCE and VC at Outfall 555. (i.e. How did TCE get into Site 54 the Old Waste Water Treatment Plant?)



Catherine B. Templeton, Director

Promoting and protecting the health of the public and the environment

MEMORANDUM

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

FROM: Kent Krieg, Risk Assessor
Corrective Action Engineering Section
Division of Waste Management
Bureau of Land and Waste Management

KMK

DATE: September 13, 2012

RE: Marine Corps Recruit Depot
Parris Island, South Carolina

Document:

Draft Preliminary Assessment/Site Investigation Report for Site 14 –Storm Water Outfalls, rev. 1
July 2012

The above referenced document by Tetra Tech NUS, Inc. has been reviewed. The Department has the following risk related comments.

Specific Comments:

- 1) *2.3 Site Description, pg. 2-3 and Figure 2-3 - Conceptual Site Model*
The conceptual site model does not address the potential groundwater migration into the storm water system. An example of this potential pathway would be the reported groundwater contamination associated with Site 45 migrating to Outfall 881. Please update the text and figure to account for this potential pathway.
- 2) It does not appear that the corrections asked for in the *Krieg to Amick Memo* dated August 31, 2011, included with the *Amick to Cook Draft Final Site 14 Investigation Plan Approval* dated August 31, 2011 have been addressed. It was requested that necessary corrections can be made in this report. Please address the mentioned corrections.

If you need any further information, feel free to contact me at (803) 896-4262.

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Catherine B. Templeton, Director

Promoting and protecting the health of the public and the environment

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MEMORANDUM

TO: Meredith Amick, P.E., Engineering Associate
Corrective Action Engineering Section
Division of Waste Management
Bureau of Land and Waste Management

FROM: Annie M. Gerry, Hydrogeologist 
Federal Facilities Groundwater Section
Division of Waste Management
Bureau of Land and Waste Management

DATE: September 13, 2012

RE: Marine Corps Recruit Depot
SC6 170 022 762

**Review of Draft-Preliminary Assessment/Site Investigation (PA/SI) Report
for Site 14-Storm Sewer Outfalls, Marine Corps Recruit Depot (MCRD), Parris
Island, South Carolina dated July 2012**

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. The storm sewers outfalls located at MCRD drain storm water from facility process areas where wastes were disposed of into the storm sewer system which are then discharged to the rivers and marshes. Site 14 was identified in the Initial Assessment Study (IAS) and the Resource Conservation and Recovery Act Facility Assessment (RFA) as a result for the potential lack of integrity of the storm sewer system (installed over 50 years ago). This investigation plans to determine if contamination is present in storm water and sediment outfalls based on locations where historic dumping practices may have occurred.

This PA/SI report summarizes field activities, presents the analytical results and recommendations for Site 14 to determine if any storm water outfalls and associated sediment require further investigation. This report recommends that a number of outfalls could require further investigation.

Based on review of this document, no comments were generated.

Should you have any questions regarding this memo, please contact me via email at GerryAM@dhec.sc.gov or by phone at (803) 896-4018.

File # 50492

