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LETTER OF TRANSMITTAL AND SOUTH CAROLINA DEPARTMENT OF HEALTH AND
ENVIRONMENTAL CONTROL COMMENTS ON TECHNICAL MEMORANDUM POST-
INTERIM RISK ASSESSMENT FOR SITE 3 CAUSEWAY LANDFILL MCRD PARRIS ISLAND
SC
8/26/2008
SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL



2600 Bull Street
Columbia, SC 29201-1708
August 26, 2008

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

RE: Site 3 Technical Memorandum Post-Interim Construction Risk Assessment
Marine Corp Recruit Depot
Parris Island
SC6 170 022 762

Dear Mr. Cook:

The Corrective Action Engineering Section of the South Carolina Department of Health and Environmental Control (Department) has completed the review of the above referenced document received July 28, 2008. Based on this review, the Department has comments. Please refer to the attached engineering and risk assessment comments. This document should be revised to reflect changes based on the comments provided. All comments to the Technical Memorandum must be resolved prior to moving forward with the Proposed Plan and Record of Decision.

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
Sommer Barker, Hydrogeology
Priscilla Wendt, SCDNR
Russell Berry, EQC Region 8, Beaufort

Lila Llamas, EPA Region 4
Tom Dillon, NOAA
Mark Sladic, TtNUS
Heber Pittman, MCRD Parris Island

ENGINEERING COMMENTS
Prepared by Meredith Amick *MA*
Marine Corps Recruit Depot (MCRD)
August 26, 2008

General Comments

1. Typically the Department does not review a document that is received without a Navy cover; however, due to the major revisions that will be necessary to this document, the Department has expedited their review and submission of comments. In the future documents without official Navy cover will not be reviewed.
2. All comments to the Technical Memorandum must be resolved prior to moving forward with the Proposed Plan and Record of Decision.
3. Prior to implementing fishing restrictions as a Land Use Control, the Department requires fish tissue samples with elevated concentrations of site related contaminants.

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MEMORANDUM

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

FROM: Susan K. Byrd, Risk Assessor *AmB*
Corrective Action Engineering Section
Division of Waste Management
Bureau of Land and Waste Management

DATE: August 26, 2008

RE: Marine Corp Recruit Depot
Parris Island, South Carolina

Document:
Technical Memorandum
Post-Interim Construction Risk Assessment
Site/SWMU 3-Causeway Landfill

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

GENERAL COMMENTS:

1. It is unclear in the document if the contamination present is site related or from non-point source, road run-off, basewide pesticide applications or other forms of anthropogenic contamination. Please be sure that the document clearly identifies contamination attributable to the landfill and does not over estimate risk based on background.
2. In continuation with Comment 1, the Department recommends a more thorough discussion and use of the background data set. Looking at the entire background data range indicates that most of the COPCs for the human health and ecological risk assessments appear to be attributable to background. Although the media of concern at Site 3 is sediment, the Department recommends the use of EPA's *Guidance for Characterizing Background Chemicals in Soil at Superfund Sites* (June 2001).

3. During a August 21, 2008, recent MCRD Team conference call it was recommended that the MCRD contact Mr. Butch Younginer of DHEC's Bureau of Water at (803) 898-4399 regarding SC fishing advisories and applicable fish tissue data from the area surrounding MCRD. Currently SC has fish advisories in the area of SWMU 3 for shark, tilefish, king mackerel, and swordfish. However, these species are not likely to be present in the estuary habitat associated with SWMU 3. Mr. Younginer also stated that the bioavailable form of mercury, also known as methyl mercury, is not the predominant form of mercury present in the saline wetland environment. SCDHEC fish tissue data does not indicate bioaccumulation of mercury in the saltwater estuary.
4. In accordance with EPA risk assessment guidance, the Department recommends the use of the 95% Upper Confidence Limit (UCL) instead of the maximum and average concentrations for the exposure point concentration in the human health risk assessment.
5. The document is unclear in the use of the combined 2001 and 2003 data sets. Based on the 2002 tech memo using 2001 data, only Area 4 had elevated ecological risk primarily due to pesticides. The more recent data, only from Area 4, indicates the pesticide concentrations have decreased. Combining the 01 and 03 data sets for Area 4 presents an overestimation of current site risks.
6. The human health risk assessment at Site 3 uses EPA default parameters for the conservative adult fishing scenario. Based on the above-mentioned conference call, it was determined that these conservative default parameters were not applicable to Site 3. Please revise the document using only the site specific parameters. If interviews with local fishermen/women indicate that these parameters are less conservative, please adjust the risk assessment using the most conservative but realistic parameters. A brief discussion on why someone would be less likely to fish as Site 3 than other areas at MCRD would be helpful. Please include any information regarding access restriction to Areas 1-4 such as alligators, security, more suitable nearby fishing areas etc.
7. The Department is hesitant to concur with any recommendations regarding the path forward for this site until after the completion of the extensive revisions. If the human health risk assessment concludes that unacceptable risks are associated with the site specific fishing scenarios, then fish tissue sampling will be recommended prior to the implementation of Land Use Controls.

SPECIFIC COMMENTS:

1. Section 3.2, 2003 Sediment Samples, Page 6: Several COPCs from the 2001 sampling event were excluded from analysis in the 2003 sampling event. Zinc and copper were identified in 2001 as ecological chemicals of potential concern, but the 03 sediment samples were only analyzed for DDD, DDE, DDT, arsenic, lead, mercury, and total organic carbon. Please clarify.
2. Paragraph 1, Page 8: Please clarify the conclusions of the 1998 human health and

ecological risk assessments with regards to PAHs. The document states that the "risk assessment prepared for the RFI/RI Report indicated that direct contact with 1998 sediment did not pose unacceptable risks." It is unclear if this statement is referring to the human health or ecological risk assessments. The paragraph goes on to discuss the Ecological Screening Value comparisons, but fails to summarize the ecological and human health risk assessment conclusions regarding PAHs.

3. In various places, $\frac{1}{2}$ the background value was used in tables and discussions. Please refer to General Comment 2 regarding appropriate background comparisons, and remove the $\frac{1}{2}$ background references in discussions, tables, and figures.
4. Section 6.2.2, Screening Results, Page 24: The text states that arsenic, copper, and lead exceed ESVs in Area 2; however, the referenced Table 18 indicates that no analytes were retained as COPCs. The Table 18 footnote indicates the maximum concentrations were only slightly above ESVs and less than alternate screening values. Please include the alternate screening values in Table 18 and clarify in the text.
5. Section 6.3.2.5, Pond Side Sediment-Area 4, Page 30, Paragraph 2: The text states that the maximum concentration of DDD was detected from PAI-03-SD-59 at 47.5 ug/kg. Table 20 and Figure 4 indicate the maximum DDD concentration is 58 ug/kg. Please clarify.

If you need any further information, feel free to contact me at (803) 896-4188.