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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 PROPOSED PLAN DRAFT 2 AND
TECHNICAL MEMORANDUM FOR SITE 3 MCRD PARRIS ISLAND SC
11/15/2010
SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL

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November 15, 2010

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

RE: Technical Review of the Site 3 Proposed Plan D2 and Technical Memorandum
Marine Corp Recruit Depot (MCRD)
Parris Island
SC6 170 022 762

Dear Mr. Cook:

The Division of Waste Management of the South Carolina Department of Health and Environmental Control (Department) completed the review of the *Site 3 Proposed Plan D2 and Technical Memorandum* both received September 30, 2010. The Department reviewed the documents with respect to applicable sections of the South Carolina Hazardous Waste Management Regulations (SCHWMR) and the Federal Facilities Agreement. Based on review of the September 30, 2010 document the Department provides the following risk assessment comments for the record, and no response or revision is necessary. Please note if any additional revisions to the September 30, 2010 documents are made, the Department reserves the right to provide additional comments.

The Department's comments are 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,

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

cc:

Tim Harrington, MCRD Parris Island
Annie Gerry, Hydrogeology
Priscilla Wendt, SCDNR
Russell Berry, EQC Region 8, Beaufort

Lila Llamas, EPA Region 4
Tom Dillon, NOAA (via email)
Mark Sladic, P.E., TtNUS
Lisa Donohoe, MCRD Parris Island

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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

DATE: November 12, 2010

RE: Marine Corps Recruit Depot
Parris Island, South Carolina

Documents:

Technical Memorandum Post-Interim Construction Risk Assessment

Sites: SWMU 3 – Causeway Landfill

Dated September 2010

Site/SWMU 3 Proposed Plan

Dated September 2010

The above referenced documents by Tetra Tech NUS, Inc. and Department of the Navy have been reviewed. The Department (DHEC) does not agree with conclusions coming from these documents and consistently expressed concerns over the years on how the investigation was proceeding. On many occasions, these concerns were not addressed satisfactorily; therefore, the Department has the following risk related comments:

General Comments for both documents:

1. The overall objective of the project, based on the 9/09 QAP meeting minutes, was to risk communicate the acceptable number of meals (using back-calculation) to the fisherwoman. The Department was concerned with the elevated risk levels presented in the inaccurate fish ingestion models. Therefore, DHEC requested actual fish tissue data to provide individual risk communication to the highly exposed individual. It is the Department's opinion that the team lost track of the overall objective.
2. The Department is not in agreement that the fisherwoman identified as a highly exposed individual is representative of an existing subsistence fisher population. The Department feels that the one identified subsistence fisherwoman is no more than an exposure scenario outlier and should have been eliminated from the RME. According to EPA guidance, a population survey should have been provided to the entire fishing community in order to determine if a subsistence fishing population really existed at Site 3, as has been done on other NPL sites in South Carolina.

3. The Department requested the analysis of Arochlor 1254 as part of the fish tissue investigation since Arochlor 1254 was identified in the original human health risk assessment. 2009 fish tissue analysis only included a limited data set of the World Health Organization dioxin-like PCB congeners. EPA Guidance discusses the concerns of congener analysis in samples collected in later stages of site investigations such as the post-remedy fish tissue sampling. EPA Guidance suggests if congener analysis is determined to be cost effective and comparable, then Arochlor analysis should also be evaluated simultaneously to calculate total PCBs. DHEC brought their concerns to the Team regarding the lack of Arochlor 1254 data, and was later provided additional fish tissue analysis of Arochlor 1254. The results of this Arochlor 1254 fish tissue analysis were non-detect. This information was not presented in the Tech Memo or Proposed Plan, and, if presented, would support the conclusion that PCB congeners are from anthropogenic sources and the concentrations of Arochlor-1254 have decreased at Site 3.
4. As presented, it is uncertain if there is historical source attribution for PCB congeners at the site due to having historical Arochlor data and present dioxin-like data. Due to the lack of presented current Arochlor data, it is recommended that the original PCB COC, Arochlor 1254, be evaluated during the 5 year review. By providing this analysis, a direct comparison to historical values can be made, as well as, support to make PCB Arochlor conclusions.
5. The Department feels that the presented risk assessments in the Technical Memo contradict each other. As stated, there is no risk to ecological receptors or human health from contact with surface water and sediment, yet fish consumption is related to sediment and/or surface water contamination. Since the surface water and sediment are the pathways for contamination to migrate to the fish population and the documents state these pathways no longer exist, then risk to the fish should also be negated. This broken migration pathway also shows the likely influence of anthropogenic background within the Site 3 data set.
6. The Department does not think that the fish analyzed are representative of the local seafood diet. Multiple fish used in the analysis are above the legal, regulated limits set by SC DNR. In addition, the processing of the fish filets for analysis may not represent the recommended, normal procedure for anglers such as removing the belly flap, back fat, and skin. As stated by the FDA, US EPA, and DHEC, trimming the fat off the fish as well as cooking the fish can reduce the amount of PCBs by over 50%. These uncertainties were not addressed in the Technical Memo.
7. The team was not in agreement on the presentation of the anthropogenic background data as well as the interpretation of the reference values. The Department feels, based on EPA guidance, that the background data set is comparable to Site 3. DHEC believes that the risk presented in the Technical Memo is not related to Site 3 but represents anthropogenic background risk in the coastal Beaufort area. In addition, the data shows PCB values far below the FDA's action level of 2 ppm, which has been used at other sites across the nation.
8. The Department believes that the overly conservative nature of this risk assessment provides acceptable uncertainty that the risk to human health from the ingestion of fish from Site 3 is within the risk management range. These uncertainties are discussed in the Technical Memo document but not taken into account in the overall conclusion and Proposed Plan. In the Department's opinion, the proposed posting of no fishing is overly conservative and unnecessary. However, DHEC accepts the Navy's decision to be overly conservative and protective of human health.

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