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MCRD PARRIS ISLAND
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LETTER REGARDING U S EPA REGION IV COMMENTS ON TECHNICAL MEMORANDUM
POST-INTERIM CONSTRUCTION RISK ASSESSMENT FOR SITE 3 CAUSEWAY LANDFILL
MCRD PARRIS ISLAND SC
9/10/2010
U S EPA REGION IV



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 4

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

September 10, 2010

**CERTIFIED MAIL
RETURN RECEIPT REQUESTED**

4SD-FFB

**Naval Air Station, JAX
Navy Facilities Engineering SE
Installation Restoration, SC IPT
Attn: Charles Cook
PO Box 30
North Ajax Street, Bldg 135
Jacksonville, FL 32212-0030**

And

**Commanding General
Marine Corps Recruit Depot
Natural Resources & Environmental Affairs
Attn: Tim Harrington
PO Box 5028
Parris Island, SC 29905-9001**

SUBJ: EPA Review of the Technical Memorandum Post-Interim Construction Risk Assessment for Site 3 – Causeway Landfill, Marine Corps Recruit Depot (MCRD), Parris Island, South Carolina (July 2010).

Dear Sirs:

The U.S. Environmental Protection Agency (EPA) has completed its review of the Technical Memorandum Post-Interim Construction Risk Assessment for Site 3 – Causeway Landfill (Tech Memo) as a D2 Rev 1 document. EPA finds that the document is sufficient for its intended purpose, and may be considered final provided a few changes are made in accordance with the conditions listed below.

Regarding the fish consumption pathway evaluated in the Tech Memo, EPA recognizes the uncertainties associated with a study such as this, but guidance calls for decisions based on what is considered protective of human health and the environment. Although arguments are made in the document which point out the potential that PCB contaminants found in the fish sampled are not site related, this is not confirmed with statistical analysis of the data, and is only

somewhat supported by the lines of evidence presented in the Tech Memo. Furthermore, contaminants other than PCBs also generate potential unacceptable risks for fish consumption. There is also mention of uncertainties associated with consumption rates of individuals. However, information gathered by the Navy indicates that highly exposed individuals who fish from the 3rd Battalion Pond do exist. The level of consumption indicated by the information suggests subsistence level consumption. EPA's national guidance pertaining to the use of chemical data in fish advisories recommends that if sufficient actual data regarding site-specific consumption rates does not exist, default values should be used. Therefore, EPA supported the use of the default subsistence fisher consumption rates in this evaluation, and the Partnering Team agreed. EPA has determined this consumption rate should be considered the Reasonable Maximum Exposure (RME) scenario which should be evaluated for risk due to fish consumption at this site. The Tech Memo presents analysis using the fish tissue data gathered which shows potential unacceptable risks due to fish consumption, in not only the RME scenario, but also others whom consume fish in substantially less quantities. Therefore, EPA expects the Navy to propose a remedy in the form of Land Use Controls (LUCs) to address risks due to fish consumption.

Furthermore, the Tech Memo discusses analysis of sediments and surface water adjacent to the Site 3 Causeway. Based on the information presented in the Tech Memo, there is no human or ecological potential unacceptable risk related to the sediments or the surface water, other than that due to fish consumption (to be addressed by LUCs). Therefore, EPA expects a recommendation for No Action for sediments and surface water.

And lastly, EPA understands this Tech Memo, in combination with the previous Remedial Investigation, supports selecting the interim remedial actions as Final, including the associated land use controls and long-term monitoring of the groundwater beneath the waste unit (as an indicator of cover effectiveness). A requirement for maintenance of the soil cover should be added. Therefore EPA expects the Navy to recommend adoption of the interim remedy as a final remedy for soils and waste at Site 3, with slight modifications.

In order for this Tech Memo to be considered final, the following conditions must be met:

CONDITIONS:

Change pages should be submitted to address the following conditions.

1. Section 4.3, Page 27. Please explain here and in Table 11 if the results are dry weight or wet weight for ease of comparison to literature or other data sets.
2. Section 5.1, Page 30. In the first paragraph on Page 30:
 - Change "CERCLA established fish ingestion rates" to "other fish ingestion rates" or clarify this statement.
 - In the last sentence of the paragraph (beginning "Subsequent discussions..."), "CERCLA receptors" should be changed to "the selected exposure scenarios."
3. Section 5.1, Page 33. In the last paragraph prior to Section 5.2, the text mentions analysis of fish tissue included DDE and DDT in addition to DDD "and dioxin-like PCBs at the request of U.S. EPA." This should be revised to state that analysis included DDD, DDE, and DDT "at the request of U.S. EPA and NOAA, and PCBs at the request of SCDHEC based on recommendations of ATSDR. In order to address

SCDHEC's request for PCB analysis, EPA's guidance required the analysis of PCB congeners. This allowed for appropriate detection limits and for comparison against screening levels for fish tissue." Also, correct this if similar text occurs elsewhere in the document. Otherwise, remove all references to specific Agencies and simply describe what was done and for what purpose.

4. Section 5.3, Page 34. The text mentions fish tissue concentrations as being wet weight. Please indicate so on Table 13, if this is the case.
5. Section 5.4.1, Page 35. The text references Tables 14, 14A and 14B. However there is little information regarding Table 14. Table 14 includes "Total PCBs (non-dioxin like)" and "Total PCBs (dioxin like)." These terms are contradictory to the analysis obtained. The table includes a non-dioxin like Total PCB exposure point concentration. This appears to be an error. Analyses were not performed for the non-dioxin like PCB congeners (p. 46). Also, since non-dioxin like PCBs were not analyzed for, "Total" PCBs cannot be addressed. It appears 14A and 14B represent what was analyzed and calculated. Delete Table 14 and remove references to it.
6. Section 5.6.3, Page 40. At the end of the first paragraph a reference is made to Tables "18A and 18B". However, there is no reference to "Table 18". Table 18 is located just before Tables 18A and 18B. Table 18 does not include sufficient information to differentiate it from the other tables, yet it presents results which are in conflict with 18A and/or 18B. It appears Tables 18A and 18B represent results in accordance with EPA guidance. Delete Table 18 and any references to it, if there are any.

Furthermore, the non-cancer results for child subsistence fisher (19) and adult subsistence fisher (8) from the RAGS tables in Appendix H differ from those in Table 18A (17 and 7 respectively). Please reconcile the differences.

7. Section 5.7, Page 43, last paragraph. Delete the last sentence in the paragraph regarding "typical" CERCLA evaluations. CERCLA evaluations are site-specific.
8. Section 5.8, Page 47, First Bullet at the bottom. This bullet discusses the comparison of the results of the risk characterization of Site 3 vs. the reference pond. The text in this bullet seems to overstate the similarities of the comparisons as compared to the discussion in Section 5.6.3, which states, the "statistical analyses...show mixed results when considering whether or not Site 3 dioxin-like PCB concentrations are statistically greater than those detected in the reference area." Please use this statement of uncertainty in the summary bullet in Section 5.8.
9. Section 7.1, Page 64, next to last sentence before 7.2. Replace "at the request of EPA" with "in accordance with EPA guidance."
10. Section 7.2.1, Page 65, second paragraph. The first sentence states the risks "are comparable". This description is too vague. To better reflect the comparisons between the two, the sentence should be reworded to "... are comparable to, but

exceed, those from the reference location." In the second sentence, delete "and statistical comparisons". In the same sentence, Mercury is omitted from the list of primary risk drivers. Add mercury and describe its comparison by factors. Then add a new last sentence that states, "However, a statistical analysis of the two data sets showed mixed results when considering whether or not Site 3 dioxin-like PCB concentrations are statistically greater than those detected in the reference area."

This concludes EPA's conditions for approval. If there is any way EPA can assist in helping you to address these conditions, please do not hesitate to call. I can be reached at (404) 562-9969.

Sincerely,



Lila Llamas

Senior RPM

Federal Facilities Branch

Superfund Division

cc: Meredith Amick, SCDHEC
Annie Gerry, SCDHEC
Mark Sladic, TtNus ✓