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MCRD PARRIS ISLAND
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EMAIL OF TRANSMITTAL AND U S EPA REGION IV COMMENTS ON QUALITY
ASSURANCE PROJECT PLAN FOR SITE 3 CAUSEWAY LANDFILL FISH TISSUE RISK
ASSESSMENT MCRD PARRIS ISLAND SC
10/2/2009
U S EPA REGION IV

From: Llmas.Lila@epamail.epa.gov
To: charles.cook2@navy.mil; llamas.lila@epa.gov; [Sladic, Mark](mailto:Sladic_Mark); timothy.j.harrington@usmc.mil; mmcrae@TechLawInc.com; AmickMS@dhec.sc.gov; darrel.pittman@usmc.mil; Kelly.Taylor2@ch2m.com; GerryAM@dhec.sc.gov; [Claggett, Libby](#)
Subject: Fish QAPP - EPA Comments
Date: Friday, October 02, 2009 4:21:10 PM
Attachments: [21 UFP SAP for Fish Tissue D1 EPA Comments - Signed.PDF](#)
[21 UFP SAP for Fish Tissue D1 EPA Comments.doc](#)
Importance: High

Please see attached pdf file signed version of EPA's comments on the subject document. Hard copy to follow in mail.

I have also attached a word file for use in RTCs and Redline development.

You may wish to concentrate first on comment #s 6, 15, 16, 17, 19, 20, 23, and 28, as they have the greatest potential to affect field work.

I look forward to the Redline Net Meeting.

In the mean time, feel free to call me with any questions. However, I make no promises to have any answers. : -)

Lila

(See attached file: 21 UFP SAP for Fish Tissue D1 EPA Comments - Signed.PDF)(See attached file: 21 UFP SAP for Fish Tissue D1 EPA Comments.doc)



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
Atlanta Federal Center
61 Forsyth Street, SW
Atlanta, Georgia 30303-8960**

October 2, 2009

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 Quality Assurance Project Plan Site 3 – Causeway Landfill Fish Tissue Risk Assessment (QAPP) for the Marine Corps Recruit Depot (MCRD), Parris island, South Carolina (September 2009).

Dear Sirs:

The U.S. Environmental Protection Agency (EPA) has completed its review of the above referenced document and offers the following comments:

GENERAL COMMENTS:

1. Given the extensive detail in the document, including the appendices, it was not reasonable to expect complete review within the limited accelerated review timeframe requested. In order to meet the timeframe, comments are being submitted now, in an attempt to address any major obvious issues, however, please recognize a detailed technical review was not possible in the timeframe allotted. This is especially true, given submittal of the document during the fiscal year end activities. Since EPA understands the Navy intends to move forward with the field work to

meet their deadlines, at this time EPA does not intend to complete the detailed review. However, as the process is implemented, issues may arise. At that point EPA expects the Navy will still address any concerns raised by EPA. In the future, in order to avoid proceeding at such risk, EPA requests the Navy submit documents early enough to allow for the allotted review times established and agreed upon by all parties in the Site Management Plan.

SPECIFIC COMMENTS:

2. Executive Summary, Page 2, paragraph 4 – EPA believes the term “estimate” is more representative of what modeling does, as opposed to “calculate”. Please modify the next to last sentence to read “... sediment-to-fish models used to estimate fish tissue concentrations...” or “... sediment-to-fish models used to calculate estimated fish tissue concentrations”. EPA would prefer this same change be made throughout the document. Please do a search and replace for all occurrences where models are referred to as being used to “calculate” fish tissue concentrations.
3. Executive Summary, Page 3, last paragraph – To better reflect the agreement reached by consensus please modify the paragraph to replace the word “also” with “only”. To the end of the paragraph add the following sentence: “Since fishers may take fish from the pond which were present prior to implementation of the interim remedy, or which may have come into the pond after being exposed to contamination elsewhere, the sampling plan has been designed to reflect that potential consumption, as opposed to consumption of fish exposed only to post-remedy conditions. This is appropriate for determination of risk from fish consumption. However, since the sampling has not been designed to reflect only post-remedy conditions, and may reflect contaminants that are not Site 3 related, or that are not post-remedy chemicals of potential concern, the data will not be used to require any further action for Site 3 sediment, surface water, etc.”
4. SAP Worksheet #3 – Distribution List, page 12 - Please change the EPA RPM’s email address to delete “Koroma-“. Please do this everywhere the email address is listed throughout the document. This same comment was made on the draft MMRP SAP. Therefore it appears a master list is generating this same error repeatedly. Please update the master list(s) as well.
5. SAP Worksheet #3 – Distribution List on Page 12 of 91 indicate that some of the project roles (i.e., field operations leader and site safety officer) have yet to be determined (TBD). To ensure completeness and accuracy, revise the Quality Assurance Project Plan Site 3 – Causeway Landfill Fish Tissue Risk Assessment dated 2009, herein referred to as the Uniform Federal Policy SAP (UFP SAP), by updating the TBD designation in the relevant worksheets of the final revision by identifying the appropriate staff personnel as needed.
6. SAP Worksheet #6, Procedure column – First row - Please add to the end “The TtNUS TOM must first get approval from the PI Team, unless otherwise noted in the SAP or agreed to via consensus up front.” Third row- Please add to the end “Navy inform PI Team immediately.” Fourth row – Please add to the last sentence “...change, after consulting with the PI Team for consensus, except where already approved in the SAP.” Fifth row – Please add to the end “Navy to notify the PI Team immediately.” Sixth row – Please add to the end “TtNUS to notify the PI Team immediately.”

7. SAP Worksheet#7, Page 18 – Please provide the names and corresponding Education and/or Experience Qualifications for both positions. Page 19 – Please correct typos in the last two rows to be “... Navy RPM...”.
8. SAP Worksheet #9.1, Page 21, Consensus Decisions, First Bullet – Please add to the end “EPA agreed to the study goal and COPCs provided the results would only be used to make decisions regarding the need for ICs in the form of fish restrictions and risk communication. The results are not to be used to require any further action on Site 3 sediments, surface water, etc.”
9. SAP Worksheet #9.1, Page 22, Consensus Decisions, Last Sentence – Please add the word “draft” before minutes. In future SAPs, finalize the minutes before drafting the SAP and ensure consensus items are captured in the minutes so they can be included as written and agreed upon at the time. Also see comment above regarding email.
10. SAP Worksheet #9.2, page 23 – See comment above regarding email
11. SAP Worksheet #9.2, page 24 – Modify the Title line to read “Comments/Decisions Cont’d”. Modify this section to read as follows:

“Sediment-to-fish tissue models were used in the development of the draft Technical Memorandum (TtNUS, July 2008) to estimate fish tissue concentrations resulting from exposure of fish to measured contaminant concentrations in post-remedy sediment samples. Results indicated potentially unacceptable risk. Comments were received on the models used and an alternative model for determining mercury concentrations in fish was recommended by USEPA. DHEC recommended sampling 3rd Battalion Pond.

The EPA recommended model and other changes to the modeling procedures will be implemented and the results presented in the revised Tech Memo. The estimated fish tissue concentrations derived by the use of these models and based on post-remedy sediment samples will be used in calculating risks as would be generated by post remedy conditions and reported as such. The associated uncertainties will be discussed in the uncertainties section of the revised Tech Memo.

Once fish tissue sampling has been completed, the measured fish tissue concentrations will be used to calculate potential risks to human receptors resulting from consumption of fish from the 3rd Battalion Pond, which may contain fish exposed to pre-remedy conditions, as well as conditions and contaminants external to the pond and removed from Site 3.

The draft minutes of the conference call are included in this SAP as Appendix A.”

12. SAP Worksheet #10, page27, Last paragraph and Page 28 first full paragraph – Delete these two paragraphs and replace them with the three main paragraphs in the comment above. Page 29 – Modify the last sentence to read “... decision pertaining to ICs that would be presented in the Final ROD for Site 3 and to communicate risk to the local fishers.”

13. SAP Worksheet #10, page 35, Table 10-2 – There is a more current version of the EPA Regional Screening Levels (RSLs) than the June 2008 version referenced in Footnote 2. The footnote also incorrectly cites Oak Ridge National Laboratory as the source of the data. EPA should be cited as the source for the RSLs, and the correct citation should be April 2009. Please update the SAP accordingly.
14. SAP Worksheet #11, page 36, Section 11.2, Bullet number 1 – Modify the last sentence to read “... sediment-to-fish tissue modeling to estimate fish tissue concentration which will be used to generate a risk associated with post remedy conditions and can be further discussed in the uncertainties section.” Page 37, Bullet number 5 – Modify the last sentence to read “... collected at 3rd Battalion Pond can be contributed to local background/anthropogenic conditions.”
15. SAP Worksheet #11, page 38, Section 11.4 – The section describes the method for screening of site data against the reference concentration. The reference location screening should not include screening of PCBs, since there should not be any background and/or anthropogenic component of PCB contamination that is related to widespread common uses. Please clarify this point in the text. (However, the analysis of reference locations and duplicates for PCBs may still provide information which could be discussed in the uncertainties section of the HHRA if there is a presence in the reference samples. Blanks will also clarify these are not lab contaminants. So, although PCBs will not be screened against for the reference locations, it would still be beneficial to analyze for them.)
16. SAP Worksheet #11, page 39, Section 11.5 – A target number of fish (samples) to be collected was discussed agreed upon by the PI Team and should be accepted as sufficient, regardless of outcome. The use of VSP should have occurred up front (as suggested numerous times by EPA for development of SAPs) if it were to be used to determine acceptance criteria. Decisions should be made based on the results from this SAP, regardless of whether statistical assumptions 1-4 hold true or not and regardless of whether the reference location and pond results have the same standard deviations.
17. SAP Worksheet #s 12 & 14 – The Navy may decide field duplicates are not necessary, since there is really no opportunity for variation in the taking of fish in the field. EPA recognizes in SAP Worksheet #12 the lab has QC samples for all analytical groups to validate laboratory analysis. If it is decided to not take field duplicates, a confirmation should be made that sufficient fish are being collected from both the pond and the reference location to perform all the analysis being required. With respect to QC analysis, please explain whether or not any of the QC analysis will be conducted on fish tissues from the reference location, or how those 8 field samples count in the mix of 16 pond samples and 8 reference samples with respect to the 1 per 20 QC samples. Also, explain if QC samples need to specify top feeders or bottom feeders for comparison purposes in the 1 per 20 count.
18. SAP Worksheet #14, Fish Tissue Sampling, page 44, first sentence – Modify the sentence to read “...collected at 3rd Battalion Pond can be contributed to local background/anthropogenic conditions.”

19. SAP Worksheet #14 – In the text for Summary of Project Tasks, Fish Sampling, the first paragraph on Page 45 of 91 indicates once the whole fish arrives at the laboratory, the fish will be filleted, with the left fillet submitted for laboratory analysis. The text further states the right fillet of one fish from each target species (both from the pond and from the reference location) will be submitted as a duplicate. Since two (2) target species (top predator and bottom feeder) each will be collected from both the pond and the reference location, the worksheet implies a total of four (4) right fillets, two (2) from the pond and two (2) from the reference locations will be submitted as duplicates. However, SAP Worksheet #18 – Sampling Locations and Methods/SOP Requirements Table on Page 57 of 91 and SAP Worksheet #20 – Field Quality Control Sample Summary Table on Page 59 of 91 indicate a total of three (3) field duplicates will be collected. Given this comment and the comment pertaining to Worksheet #12, revise the UFP SAP to address the discrepancy in the reported number of duplicate samples to be collected.
20. SAP Worksheet #16 – The Project Schedule/Timeframe Table (optional format) on Page 50 of 91 does not present the most current project schedule. During the most recent MCRD Parris Island Project Team Meeting held in Columbia, South Carolina on September 15-16, 2009 it was agreed upon by the project team to accelerate the schedule based upon Tier II requests for an accelerated project schedule. To ensure completeness and accuracy revise the UFP SAP by updating the worksheet of the final version with the project schedule as agreed to by the Project Team.
21. SAP Worksheet #17, page 53, first paragraph – Please modify the last sentence to read “... whether COPCs in fish collected from the 3rd Battalion Pond can be contributed to local background/anthropogenic conditions.”
22. SAP Worksheet #19 – In the text of Sampling Design and Rationale, the first sentence in the first paragraph in the subsection titled Sampling Locations on Page 53 of 91 states “Figure 17-1 shows that there are two fishing piers located along the Site 3 Causeway Landfill (one in each lobe of the pond near the culverts) and boat launches are located in the northern portion of each lobe”. A review of Figure 17.1, Sampling Locations, revealed that the two fishing piers are not shown in the figure as indicated in the worksheet however, the culverts are depicted. Also, the boat launches referenced in the worksheet are not shown to be located in the northern portion of each lobe. To provide a point of reference relative to the four (4) sample lobes of the 3rd Battalion Pond revise the figure to include the locations of the two fishing piers and boat launches.
23. SAP Worksheet #30 – EPA Region 4 is familiar with the SGS lab selected for PCB analysis, their procedures and abilities. However, Katahdin is not a familiar lab to EPA Region 4. The Navy NFESC certification letter in Appendix F indicates the approval period expires September 30, 2008. EPA suggests requesting the most recent MDL study be reviewed as an indicator of their recent experience and capabilities with respect to the services they will be providing, prior to the initiation of field work.
24. Appendix B, page B-1 – Please modify the last sentence of the third paragraph to read as follows, “... by recreational and subsistence fishers will be included in the risk assessment to represent potential risk contributed to post remedy conditions, and may be further discussed in the uncertainties section.

25. Appendix B, page B-2, Section B.1 – In the last paragraph delete the word “Sediment”. It is assumed this was a typo. No sediment samples are to be taken.
26. Appendix B, Section B.1 – The discussion in this Appendix does not appear to address how screening site data against the reference data will be conducted. Discussion should be added to Section B.1— Selection of COPCs.
27. Appendix B, Table B-2 – This table presents the exposure parameters to be used in the risk calculations. EPA previously submitted comments pertaining to this Table. However, a record of the resolution to those comments cannot be located. Therefore, EPA is still investigating the appropriateness of the contents of the table, especially with respect to Exposure Duration and averaging time for non-carcinogens. It seems apparent the averaging time for the adult military recreational fisher should be 2,190 days. EPA hopes to be prepared to address the remainder at question by the time the RTC/redline meeting is held. Please make the necessary changes.
28. Appendices D and E – Insufficient time was allowed to fully review these Appendices. Therefore, it is unclear exactly what will be done to prepare samples at Katahdin before shipment to SGS, and whether the appropriate coordination has occurred between the two labs. While field SOPs indicate the fish can be shipped in ice or dry ice, EPA recommends once the samples have been prepared, resulting in a powder form, shipment occur with dry ice only. It is unclear what requirements SGS has for accepting samples. Since SGS works closely with EPA, they may also require shipment with dry ice only. Therefore, the labs should coordinate SOPs to clearly indicate what level of sample prep Katahdin will perform before shipment to SGS, and based on that level of sample prep, what shipping requirements SGS has in order for Katahdin samples to meet acceptance criteria. This should be accomplished before field work begins.

This concludes EPA’s comments. If there is any way EPA can assist in helping you to address these comments or to meet milestones, please do not hesitate to call me at (404) 562-9969.

Sincerely,



Lila Llamas
Senior RPM
Federal Facilities Branch
Superfund Division

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