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LETTER AND U S NAVY UPDATED RESPONSE TO REGULATOR COMMENTS ON THE DRAFT REMEDIAL INVESTIGATION/FEASIBILITY STUDY OPERABLE UNIT 23 SITE 49
MCB CAMP LEJEUNE NC
7/23/2012
CH2M HILL

Updated Response to Comments
Draft Remedial Investigation / Feasibility Study
Operable Unit 23, Site 49
Marine Corps Air Station New River, North Carolina

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Introduction

The purpose of this document is to address comments on the Draft Remedial Investigation/Feasibility Study (RI/FS) for Site 49, Operable Unit (OU) No. 23. The United States Environmental Protection Agency (USEPA) and North Carolina Department of Environment and Natural Resources (NCDENR) provided the comments listed below. The responses to comments are provided in bolded text.

North Carolina Department of Environment and Natural Resources

Comments (dated June 18, 2012)

1. The page numbers of the Executive Summary appear to be miss-labeled or a page (ii) is missing. Please make appropriate corrections.

   The appropriate corrections will be made to the page numbers.

2. The CERCLA Balancing Criteria Table on page v of the Executive Summary indicates that No Action and MNA have a high ranking with regard to short term effectiveness. The paragraph following this table explains the reasoning. The EPA and the State do not accept MNA as an active remedy and certainly, No Action has no effectiveness whatsoever. The ranking of the "No Action " remedy should be low and as we discussed regarding the ranking of MNA at Site 69, the ranking of MNA should at the best be medium since it is not an active remedy but has a small environmental foot print regarding energy use and potential work injury relative to the other alternatives. Please make appropriate corrections in the CERCLA Criteria Table and in the paragraph that follows the table, as well as in Section 10.3.5 and throughout the FS.

   Based on the Short-Term Effectiveness Criteria, MNA and LUCs meet the "high ranking" for protection of short term risks to the community and workers during implementation and limiting potential adverse affects to the environment. MNA and LUCs would meet the "low ranking" for time required to meet the RAOs. Based on how MNA and LUCs compare to these criteria, the ranking will be revised to "moderate" and the text adjusted appropriately.

3. The second bullet on page 4-4 states that PCA and TCA exceed their respective NC SSLs in one subsurface soil sample ((IR49-IS09). This would imply that source contaminants exist at the site that could continue to leach to groundwater at concentrations above the NCAC 2L Groundwater Standards. The 15A NCAC .0106 (f)(4), .0106(k)(1), and .0106(l)(1) require that, for MNA remedies, source removal or control. It appears that we may need to delineate the source contaminant in the area of sample IS09 and complete a treatment or removal action in this area.

   The soil sampling strategy was implemented to identify any potential source areas across the site and the results indicated that VOCs in subsurface soil were limited to a single sample location (IR49-IS09). IR49-IS09 was collected from an interval within the vadose zone from the soil boring of monitoring well IR49-MW01 where VOCs were also detected in groundwater. Due to the tidal nature of the New River, there is the potential that groundwater smearing has occurred. The extent of VOCs in subsurface soil and groundwater is delineated and isolated to this location. Additionally, none of the detected concentrations of VOCs in soil exceeded their respective adjusted residential RSLs and there were no unacceptable human health or ecological risks identified from exposure to soil. Therefore, no further action for soil was recommended.

4. The ARARs Tables in Section 8 should include NC Sediment and Erosion Control rules, 15A NCAC 4A and 4B and NCGS 113A: 51-66 Article 4. Please make these additions to the action specific ARARs Table in Section 8.

   The actions that would be taken to implement the remedial alternatives would not result in any changes to the natural cover or topography enough to cause or contribute to sedimentation. Intrusive components of the alternatives include activities such as well installation and the construction of aboveground appurtenance, are not considered land-disturbing activities.

5. Dave Lilley with the Division of Waste Management will be reviewing the Risk Sections of the document and provide comments as appropriate.

   Comment noted.

Comment (received via email dated June 26, 2012)

1. I notice that we discussed that additional sampling for the RI/FS at Site 49 was not needed since we all felt that the plume was well delineated, March Partnering Meeting.

   It seems like we also discussed that there was no need to sample the area for Metals contaminants. Did we not sample for any metals contaminants in any of the sample locations or well locations during the PA/SI or other sampling events?

   If we have metals samples we need to discuss them in this report. If not we need to clarify in the summary sections and analytical sections of the report, as to why we didn't need to sample for metals.

   Metals data were collected for soil and groundwater during the PA/SI and attributed to site geology and not historical disposal practices at Site 49. We will include this in our responses to comments and summarize this information in the RI/FS report.

Comments (received from Dave Lilley via Randy McElveen on July 16, 2012)

1. Appendix F, Table 1.1: It is unclear to the reader why pore water would better represent recreational user exposure to surface water than the total chemical concentrations. Please explain.

   Surface water samples were not collected from the New River because they could potentially include upgradient sources of surface water contamination. Porewater samples were collected along the shoreline of the New River adjacent to Site 49, and are a conservative representation of potential VOCs concentrations in surface water from groundwater discharging to the New River from Site 49. Thus, these pore water data were evaluated as conservative surface water in the HHRA.

   Table 1.1 will be updated as follows:

   "Recreational users of the New River could contact surface water in the river. Surface water samples were not collected from the river. However, porewater samples collected from locations near the southern shoreline of the New River to assess the water quality of the groundwater discharging to the surface water were conservatively used to represent potential surface water concentrations. It is likely that actual surface water concentrations would be lower due to dilution of the pore water in the New River surface water."

2. Table 6-1: Please explain why only VOCs were analyzed in surface soil, surface water, and sediment. Why were SVOCs and metals not analyzed in these media?

   Groundwater and subsurface soil samples collected during the Site 49 PA/SI were analyzed for VOCs, SVOCs, and metals. The PA/SI concluded that potential risks to human receptors from potential exposure to VOCs in groundwater were present. However, metals were attributed to site geology and not historical disposal practices at Site 49, and SVOCs data for groundwater did not cause a risk to human or ecological receptors. Additionally, no unacceptable risks to human receptors from exposure to subsurface soil were identified. Thus, during the February 2011 partnering meeting, the MCIEAST-MCB CAMLEJ Partnering Team agreed to analyze site media collected during the RI field activities for VOCs only. The consensus statement is included in 2011 Site 49 UFP-SAP and all RI field activities were performed in accordance with that document.

3. The groundwater and subsurface soil lab results used in the risk assessment were not included in this report. Please submit.

   These data will be submitted.

4. The most recent EPA Regional Screening Levels should be used in this risk assessment. Please update.

   The version of the EPA RSLs used in the HHRA (June 2011) were the most recent at the time the HHRA was completed. The updates to the RSLs will be reviewed to determine whether the updates would change the conclusions and recommendations of the report and updated if needed.

5. Appendix F, Tables 2.10 and 2.11, Supplement A: The CAS number and air RSL for 1,1-dichloroethane was entered for 1,2-dichloroethane. Please correct.

The CAS number and air RSL for 1,2-DCA will be corrected on Tables 2.10 and 2.11, Supplement A. This will not result in a change in the COPCs.

6. Appendix F, Table 3.3 RME: According to Appendix F, Table 2.9, the maximum concentration of chloroform was 0.55 ug/l, not 0.39 ug/l as listed in this table. Please correct.

   The maximum concentration of chloroform (0.55 ug/l) on Table 2.9 is the maximum from the full data set. The maximum concentration of chloroform (0.39 ug/l) on Table 3.3.RME is the maximum concentration from the wells from the center of the groundwater plume, as indicated at the bottom of Table 3.3.RME. As noted in the text in Section 6.3.3, the groundwater data used to calculate the groundwater EPC were selected in a manner consistent with USEPA Region 4 risk assessment guidance (2000) to evaluate the high concentration area of the groundwater plume.

7. Appendix F, Table 6.2: Change third line of title (Cancer Toxicity Data—Oral/Dermal) to "Cancer Toxicity Data—Inhalation".

   Table 6.2 will be changed as suggested.

United States Environmental Protection Agency Comments (dated July 3, 2012)

8. Section 8.1, Remedial Action Objectives – Should include statements that identify the potential risk that would occur if these actions were not taken. Include the following statement: "The RAOs for the remediation of groundwater at Site 49 are based upon the potential presence of future residential receptors and the potential that groundwater at Site 49 may be used for potable purposes in the future".

   The statement will be added to Section 8.1.

   Also, revise the sentence immediately above the table in this section to read: "clean up goals for Site 49 are provided as follows" instead of "the proposed clean up levels for the COCs are presented as follows".

   The sentence will be revised.

9. Table 8-1, Potential Chemical-Specific ARARS – This table is missing the groundwater classification ARARs. See example below from the Site 89 FS and make the appropriate corrections: (example may not be readable, refer to the Site 89 FS for clarity). Also, remove the word "potential" from the table's title.

   The appropriate groundwater classification ARAR and corrections to the Table 8-1 title will be made.

10. Section 10.1.2, Compliance with ARARs – The reference to "Section 3.1" is not correct. It appears from the text that the section should be 8.3, please verify and correct accordingly.

    Correct, the appropriate section reference is Section 8.3. The correction will be made.