

DRAFT
March 12, 1996

RESPONSE TO COMMENTS
OPERABLE UNIT 3 DRAFT FEASIBILITY STUDY REPORT, PRAP AND ROD (NOVEMBER 1995)
MCAS CHERRY POINT, NORTH CAROLINA

COMMENTS FROM GENA TOWNSEND, USEPA (FS)

1. **Table 1-12, page 1-57. According to footnote #4, three additional exposure routes should be shaded (the HI values for these routes are shaded.)**

Response:

Agree. For the Hazard Indices, dermal contact with soils, ingestion of groundwater, and inhalation of volatiles in groundwater will be shaded. Additionally, the construction worker receptor will be shaded.

2. **Section 1.7.2.2, page 1-58, top of page 1-59, Site 7 Risks to Future Onsite Residents. The statement at the top of page 1-59, that the risk of $9.5E-04$ "is driven almost exclusively by dermal contact with soil containing the maximum concentration of OCDD" contradicts the risk results in the RI report. In Appendix J.5.10 of the OU3 RI report (October 1995), the risk from dermal exposure to OCDD in soil by the 30 year resident is shown as $1.76E-06$ (not the "driver" of a risk of $9.5E-04$). Several other chemicals contribute to the risk from soil (ingestion and dermal exposure); the majority of the risk to this receptor, however, is from ingestion of the groundwater. Revise the text in the Section as appropriate.**

Response:

Agree. This text was not revised based on the Final RI, which included the new soil data collected in 1995. The major risk drivers for soil based on the inclusion of the new soil data are arsenic and HxCDF.

3. **Section 1.7.2.6, pages 1-59, 1-61, Assessment of Lead. As this reviewer commented on for the OU3 RI, the average (not maximum) lead concentration should be input to the IEUBK model to predict the blood lead level. Rather than comparing the predicted geometric mean blood lead level, the goal is that no more than 5% of the exposure group exceed the blood lead cutoff level of 10 ug/DI. Using the average soil lead concentration of 1865 mg/kg (10/95 RI report), the IEUBK model predicts that about 53% (>5%) of the 0-72 months age group exceeds 10 ug/DI. Revise the text here in the FS appropriately.**

The text skips from Section 1.7.2.3 to 1.7.2.6. Where are Sections 1.7.2.4 and 1.7.2.5?

Response:

See the response to K. Koporec Comment Number 8 on the Draft RI. The text for both the RI and the FS will be revised accordingly.

Agree. The Sections will be renumbered.

GENA TOWNSEND, USEPA (FS/PRAP/ROD)
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4. Section 6.0, page 6-1. paragraphs 3, 4. The recommendation is made that "institutional controls... not be implemented until any future housing construction is completed...because no receptors are currently at risk from the contaminants at this site." Without institutional controls, what would prevent a production well from possibly being installed in this aquifer (could occur without housing construction)? Therefore, the institutional controls should be implemented in conjunction with the remedy to protect public health.

Response:

Agree. Institutional controls should be implemented within an appropriate time-frame which will be outlined in the Record of Decision.

COMMENTS FROM GENA TOWNSEND, USEPA (PLAN)

1. Figure 2. This figure is largely illegible. The wording needs to be darkened (or otherwise clarified) to be readable.

Response:

Agree. Figure 2 will be darkened to make it more legible. However, this figure is based on information digitized from USGS maps and better quality of lettering, etc. would require a significant drafting effort.

COMMENTS FROM GENA TOWNSEND, USEPA (ROD)

1. Figure 2. This figure is largely illegible. The wording needs to be darkened (or otherwise clarified) to be readable.

Response:

See the response to Gena Townsend's Comment Number 1 on the Proposed Plan.

2. Section 6.0, page 6, Human Health Risks subsection. A brief explanation of the reference dose, hazard index, and incremental lifetime carcinogenic risk terms should be added.

Response:

Agree. Explanations will be added.

GENA TOWNSEND, USEPA (FS/PRAP/ROD)
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3. Section 6.0, page 10, Human Health Risks subsection, discussion of risk results from the Old Incinerator area. Vinyl chloride and benzene should be included in the list of significant carcinogenic risk contributors from the groundwater. Add a sentence to list the significant contributors to noncarcinogenic hazard from potential use of the groundwater.

Response:

Disagree. Arsenic and vinyl chloride are the major risk drivers for groundwater. Text will be added regarding appropriate noncarcinogenic risk contributors (antimony, arsenic, barium, manganese, and benzene).

4. Section 6.0, page 10, line 11, Human Health Risks subsection. Revise "...child resident continually ingesting soil and groundwater..." to "...child resident regularly (daily) ingesting soil and groundwater...".

Response:

Agree. The text will be revised.

5. Section 6.0, page 10, last sentence in Human Health Risks subsection. Revise "...conservative bias to the risk estimates" to read "...conservative (health protective) bias to the risk estimates".

Response:

Agree. The text will be revised.

6. Figure 5. The chemical names are illegible.

Response:

This is an item for discussion. All 11 x 17 inch figures such as this figure were included in the RI (and hence the FS) at the request of the USEPA. All of these figures were originally developed as 24 x 36 inch plates. One possible solution would be to incorporate the plates into the FS/Plan/ROD (quickest solution). Another solution is to redraft all of the 11 x 17 inch figures, at a cost of approximately 3 weeks/\$8,000.

GENA TOWNSEND, USEPA (FS/PRAP/ROD)
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ADDITIONAL COMMENTS FROM GENA TOWNSEND, USEPA (ROD)

GENERAL COMMENT

1. It is very difficult to make detail comments on a document that does not agree with the technical discussions pertaining to this operable unit. These documents should be resubmitted for comments.

Response:

Agree. Based on comments received from the State of North Carolina on the RI, the RI is being revised. The FS, PRAP, and ROD will be revised to reflect any changes made in the RI.

SPECIFIC COMMENTS

1. This Record of Decision is following the format for a private site, (EPA is the author and signatory of those documents). Changes have been made to the standard format (wording) to meet the requirements for Federal Facility Sites. (See a copy of the Camp Lejeune ROD's).

Response:

This is an item for further discussion. Additional information has been requested of Gena Townsend (USEPA) and Orathai Gossage (MCAS Cherry Point) to clarify their comments on the format of the PRAP and ROD.

2. The Description of the Remedy should only discuss Operable Unit #3.

Response:

Agree. The text placing OU3 within the context of other Operable Units at MCAS Cherry Point will be eliminated from the Declaration Page.

3. EPA does not maintain the Administrative Record. This information is maintained at the information repositories.

Response:

Agree. The text will be revised to indicate information is maintained at repositories.

GENA TOWNSEND, USEPA (FS/PRAP/ROD)
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4. **Figure 5** is one of the figures that is worthless. Attached is a copy of a Camp Lejeune figure that is similar to the detail presented in Figure 5.

Response:

See the response to Comment Number 6 on the ROD from Gena Townsend.

5. **This document should identify the areas that have exceeded the Federal and State requirements and propose a recommended action. (For example, if the groundwater exceeds the NCWQS and the information shows contamination is in the shallow aquifer; the resulting action could be restricting or reclassifying the aquifer according to the 2L standards.)**

Response:

Agree. The text will be revised to incorporate the comment where appropriate.

6. **A discussion or table should be included that identifies which ARARs are pertinent to this operable unit.**

Response:

Agree. A table will be included that identifies ARARs.

COMMENTS FROM ORATHAI GOSSAGE, MCAS CHERRY POINT (FS)

1. In response to concerns addressed in the January 30-31 Partnering meeting, please revise the draft FS to include the following:
 - a. Upon receipt of concurrence from Linda Raynor, modify the appropriate text of the FS to reflect the decision to eliminate a cap at site 7, while still retaining institutional controls such as deed restrictions and long term monitoring for both sites.
 - b. Modify the ROD to reflect the most current EPA guidance on content and format. PRAP and ROD should be stand alone documents.

Response:

- a. This is an item for further discussion. See the response to Linda Raynor's General Comment Number 1 to the Draft Final RI. The documents will be revised after the land use issues are finalized with the Partnering Team.
 - b. This is an item for further discussion. Additional information has been requested from Gena Townsend (USEPA) and Orathai Gossage (MCAS Cherry Point) to clarify their comments on the format of the PRAP and ROD.
2. **Section 1.4.6, Site Utilization, Page 1-11, Paragraph 2. The paragraph states that future plans for OU3 may include construction of residences. Should the residential scenario be taken out of the document for consideration since it was determined during the Partnering meeting that no residences will be built on Site 7? Are we still obligated to determine risk for residential use at Site 7 if a deed restriction is detailed in the Master Plan? Should we separate future land use scenarios by Sites 6 & 7 instead of lumping them collectively into OU3?**

Response:

This is an item for further discussion. Human health risks for a hypothetical residential scenario must be presented in the RI. See the response to Linda Raynor's General Comment Number 1 on the Draft Final RI. However, suitable language for the elimination of residential land use at Site 7 is needed.

Future land use should be separated for sites 6 and 7.

3. **Section 1.7.1, Toxicity and Risk Assessment, Page 1-40, Paragraph 1. "The following subsection present a summary of the baseline..."; Replace with "the following subsections present..."**

Response:

Agree. The text will be revised.

COMMENTS FROM ORATHAI GOSSAGE, MCAS CHERRY POINT (FS)
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4. **Section 2.2, Media of Concern, Page 2-1, Paragraph 1. Should we still consider residential human health risk for Site 7? (Refer to comment #2)**

Response:

See the response to Linda Raynor's General Comment Number 1 on the Draft Final RI. Residential risks could be provided in the FS until Section 4 where alternatives are developed.

COMMENTS FROM OHM (FS)

1. The description of contaminant transport and fate was very well thought out e.g. page 1-38. However, the absence of a summary table for all individual laboratory results was a detriment. Since the Feasibility Study is considered a "stand-alone" document the writer should consider the use of a summary table (perhaps as an appendix).

Response:

Agree. An appendix consisting of data summary tables from the RI will be added.

2. The wording of the first sentence of the last paragraph on page ES-8 (especially the use of "completed") gives the impression that the geotextile and top soil layer would not be installed until any housing was already constructed. There are obvious constructability difficulties which would result from this sequence of events. Presumably the intention was to state that the placement of the geotextile and top soil would be postponed until housing construction was about to begin, and then would occur as the first step in residual construction.

*****Insert on February 16, 1996. Based on the meeting notes from 2/6/96, it appears that the Base's Master Plan will restrict residential building on Site 7. However, as this report will become part of the permanent record, OHM recommends rewriting this paragraph to eliminate any possible confusion concerning the sequence of events should construction occur in the distant future.**

Response:

Agree. The text will be revised.

3. **At part of site 7 several indications of volatile organic compounds are reported:**
 - a) **Figure 1-6 shows concentrations of benzene dissolved in groundwater of the surficial aquifer. The maximum concentration is shown centering on OU3HP07.**
 - b) **The text (page 1-19) states "A single soil sample (OU3SB06-0204) collected from the water table surface contained high concentrations of benzene, ethyl benzene, and xylenes. A temporary well in this boring during the ecological assessment indicated the presence of a fuel sheen. This boring is located approximately 90 feet ENE of PU#HP07. The absence of a summary table of individual laboratory results made it impossible to quantify what constitutes "high" concentrations.**
 - c) **The text goes on to state (same paragraph) that "A temporary well (OU3HP05) installed downgradient of this location contained benzene and vinyl chloride."**
 - d) **The text (page 1-29) states "Since its installation in 1991, benzene has consistently been detected in samples from well 7GW04, at Site 7. This well is located approximately 150 feet west of OU3HP07." The text later notes (page 38) that "The groundwater concentrations of benzene at 7GW04 has shown a decreasing trend overtime (sic) from 89 ug/L in 1991 to 36 ug/L in 1995..."**

OHM (FS)
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- e) The text (page 1-3) states "At Site 7, waste petroleum, oil, and lubricants (POL), Naval Aviation Depot (NADEP) wastes, and other wastes such as municipal refuse were burned either in the incinerator or on the ground adjacent to the unit from 1949 until 1955."

OHM agrees with the No Further Action conclusion; however, it is recommended that some thought to additional explanations be given in the areas noted in a through e since same may be troubling to a reader of this document if they are not familiar with assumptions such as low concentrations of benzene dissolved in groundwater will undergo natural attenuation over time in most circumstances. Consider referencing: no source is known to exist in the immediate vicinity of the reported VOC's, attempts made to identify the presence of source material, delineation of spatial distribution, etc.

Response:

Agree. The text will be revised and/or sections of the report will be referenced that provide additional explanation or justification as to how items a through e are addressed.

Proposed Plan

OHM was not tasked to review same.

ROD

OHM was not tasked to review same.

COMMENTS FROM RENEE HENDERSON, MCAS CHERRY POINT (FS)

GENERAL COMMENTS

1. **Groundwater treatment should be clearly defined as for the pretreatment of water from dewatering of excavations. Specifically identify as "treatment technology" and not as a "remediation technology".**

Response:

Agree. The text will be revised.

2. **Review document and correct all "air station" to "Air Station".**

Response:

Agree. The text will be revised.

3. **Please re-evaluate Alternative 2 as the recommended alternative. This alternative would restrict residential development of the property.**

Response:

See the response to Linda Raynor's General Comment Number 1 on the Draft Final RI. The issue of residential development needs to be resolved with the team members. This may require re-evaluation of the recommended alternative.

SPECIFIC COMMENTS

1. **Page ES-1, Para 1. Correct typo "...The purpose of this report is discuss..." to "...The purpose of this report is to discuss...".**

Response:

Agree. The text will be revised.

2. **Page ES-2, Para 1. The paragraph states that "no conclusive evidence is available" for risk to ecological receptors. is this information necessary for finalizing a decision?**

Response:

Yes. Remedial action could be warranted if it was determined that risks are unacceptable to ecological receptors.

RENEE HENDERSON, MCAS CHERRY POINT (FS)
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3. **Page ES-2, Para 2. Please clarify the statement "...it is assumed that residents would be provided with a separate, safe water supply...". Was this condition built in to the risk assessment, the statement reads as though it was a part of the scenario for residential however, the report does not reflect.**

Response:

No, the RI risk assessment evaluated future residents using the contaminated groundwater from the site. However, text was also included in the RI indicating what the risks would be without exposure to the groundwater. The statement provided in the FS was meant to indicate that residents would be provided potable water from a non-contaminated source. Text will be revised to clarify meaning.

4. **Page ES-3, Para 1. See General Comment 1.**

Response:

Agree. The text will be revised.

5. **Page 1, Para 4. See General Comment 2.**

Response:

Agree. The text will be revised.

6. **Page 1-7, Para 4. Define "shallow groundwater" and "deeper groundwater". Use USGS studies to more definitively identify groundwater flow direction.**

Response:

Agree. USGS studies will be reviewed to better define groundwater flow direction in the Yorktown aquifer. "Shallow" groundwater refers to the surficial aquifer, while "deeper" groundwater refers to the Yorktown aquifer.

7. **Page 1-8, Para 1. Luke Rowe's Gut classification to be determined by State, correct when classification is determined.**

Response:

Agree. The SC classification indicated in Linda Raynor's RI comment Number 4 will be used in the FS.

RENEE HENDERSON, MCAS CHERRY POINT (FS)
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8. **Page 1-10, Para 3. Goose Creek was studied as a "control" creek and is not adjacent to Air Station property. Correct the description.**

Response:

Agree. The text will be revised.

9. **Page 1-11, Para 3. Identify the base personnel providing the information off the construction of residences. There are no plans for residential construction at this site.**

Response:

See the response to Linda Raynor's General Comment Number 1 on the Draft Final RI.

10. **Figure 1-3. The sample identifications are impossible to read. Correct by slightly enlarging the characters and lightening the site location hatch marks.**

Response:

See the response to Gena Townsend's Comment Number 6 on the ROD.

11. **Page 4-11, Para 5. Correct typo "...treatment of the Surface Soil..." to "...treatment of the surface soil..."**

Response:

Agree. The text will be revised.

12. **Page 6-1 Section 6.0. See General Comment 3.**

Response:

See the response to Linda Raynor's General Comment Number 1 on the Draft Final RI.

13. **Table 1-1. Are there no surface sample results (vols, semivols, pest, PCBs) for Site 6? Provide an explanation.**

Response:

The NA provided in this table indicates no surface soil samples were analyzed for organics at Site 6. The text will be modified to indicate that no samples were collected. Data were discussed in detail in the RI.

RENEE HENDERSON, MCAS CHERRY POINT (FS)
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14. Page 1-39, Para 2. "typical literature...default values" should be defined.

Response:

Agree. Values and references will be provided.

15. Page 1-54, Para 4. Identify 3.3E-6 as within risk range goal.

Response:

Agree. The text will be revised.

16. Page 1-58, Para 2. Identify 2.1E-5 as within range.

Response:

Agree. The text will be revised.

17. Page 1-58, Para 3. Identify 5.7E-1 as below 1 and that toxic effects are unlikely.

Response:

Agree. The text will be revised.

18. Page 1-66, Para 2. Correct typo "...on Surface Waters at OU3..." to "...on surface waters at OU3...".

Response:

Agree. The text will be revised.

19. Page 1-66, Para 4. A determination should be made by the team as to whether or not additional field work is required to complete a ecological assessment.

Response:

Disagree. The text will be revised to indicate that additional field work is not required to complete an ecological assessment. Documentation of the comments on the ecological assessment from USEPA is required.

RENEE HENDERSON, MCAS CHERRY POINT (FS)
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20. Page 2-3, Para 1. Correct typo "...its land will not released to..." to "...its land will not be released to...".

Response:

Agree. The text will be revised.

21. Figure 2-1. Identify the line around OU3SB05, OU3HP01.... Also, please explain the "construction debris missing" notation.

Response:

This line, which identifies the Carex Sp. Marsh., will be removed from this drawing. The word "Missing" will be removed and the word "Pile" will be added.

22. Page 2-14, Para 2. Correct typo "... (TSDF) may be used prevent the migration..." to "... (TSDF) may be used to prevent the migration...".

Response:

Agree. The text will be revised.

23. Page 2-18, Para 2. Correct typo "...addressed int he detailed evaluation..." to "...addressed in the detailed evaluation...".

Response:

Agree. The text will be revised.

24. Page 2-18, Para 3. Correct "...North Carolina's Control Area..." to "...North Carolina's Coastal Area...".

Response:

Agree. The text will be revised.

25. Page 3-9, Para 1. Correct typo "...guidances for the maintaining safety..." to "guidances for maintaining safety...".

Response:

Agree. The text will be revised.

RENEE HENDERSON, MCAS CHERRY POINT (FS)
PAGE SIX

26. Page 3-12, Para 1. Correct typo "...solidification may be monolithic block..." to "...solidification may be a monolithic block...".

Response:

Agree. The text will be revised.

27. Page 3-19, See General Comment 1. Change the section to reflect groundwater treatment as a "treatment", correct "remedial technology" with "treatment technology".

Response:

Agree. The text will be revised.

28. Page 3-41, Para 2: Change "remedial alternatives..." to "...treatment alternatives...". Also, correct slurry walls to sheet piling as the representative process option to correspond with earlier text.

Response:

Agree. The text will be revised.

29. Page 4-2, Para 1: The statement that removal of the entire groundwater contaminant source to attain PRGs based on "professional judgment" ... "would be impractical" should be revised. Alternatives should be eliminated based on screening and not necessarily personal judgment.

Response:

This is an item for further discussion. If desired, an additional alternative (which would remove all contaminated soil) can be evaluated. This alternative was evaluated in an earlier version of the FS and had a cost of \$27,800,000 to remove 76,000 cubic yards of contaminated soil. Additionally, treatment for residual contamination in groundwater would be conducted.

COMMENTS FROM GARY MCSMITH, LANTDIV (FS)

GENERAL COMMENTS

1. **Combine the Executive Summary and the Summary and Conclusions Section into an Executive Summary and Conclusions Section. Use bullets to set off main ideas wherever possible. List conclusions in bullet format. See example bulleted conclusions (attached). Use this format to present ideas. Don't leave open ended questions in the conclusions. Make a recommendation and support it with facts. Wishy washy statements like the following are not acceptable:**

"Overall, OU3 appears to be fairly stable and present little risk to potential receptors except under future land use conditions or a long term construction project at Site 7. However, there is a potential for occurrence of adverse ecological effects based on preliminary food chain modeling conducted using generic published exposure factors and average or maximum chemical concentrations.

No data gaps have been identified at this site. The data for this site are adequate to both define and select a remedial alternative." (Page 8-6).

State the facts, make a recommendation. Don't leave things open ended. See the example provided.

Response:

Agree. The text will be revised as per discussions occurring on March 1 and the revised outline submitted at that time.

2. **Place land use restrictions on Site 7. This land is not for residential use, nor is the aquifer for drinking water. Don't propose a future remedial action that requires a soil cap.**

Response:

See the response to Linda Raynor's General Comment Number 1 on the Draft Final RI.

3. **Cut out redundancy wherever possible.**

Response:

Agree. The text will be reviewed to eliminate redundancy where possible.

GARY MCSMITH, LANTDIV (FS)
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SPECIFIC COMMENTS

1. Page ES-1, Paragraph 1. Change from "report is discuss" to "report is to discuss".

Response:

Agree. The text will be revised.

2. Page ES-1, Paragraph 1. Change from "which consist mainly of Slocum Creek and Luke Rowe's Gut" to "which consist mainly of surface water and sediments in Slocum Creek and Luke Rowe's Gut."

Response:

Agree. The text will be revised.

3. Page ES-1, Paragraphs 4 and 5. List the metals, at least once in the Executive Summary, that are of concern at Site 6 and Site 7 instead of just referring to them as "metals".

Response:

Agree. A list of metals will be provided.

COMMENTS FROM DAVID LILLEY, NCDEHNR (FS)

1. Page 1-59, Paragraph 1. For the 30-year residential exposure scenario, it is claimed the risk is driven almost exclusively by dermal contact with soil containing the maximum detected concentrations of OCDD. According to Appendix J.5.10, OCDD contributes about 5% of the total risk, not the majority of risk as claimed. Please explain.

Response:

The statement in the text will be revised to indicate that arsenic and HxCDF drive the risk. See the response to Gena Townsend's Comment Number 2 on the FS.

2. Page ES-8, last paragraph. It is unclear to the reader why the recommended alternative would not be implemented until future housing construction is completed. What would prevent a well from being installed before or without housing construction? In addition, the lead in soil should be addressed. Surface soil concentrations of lead along Slocum Creek and Luke Rowe's Gut were several thousand to 9,000 mg/kg. According to telephone (February 22, 1996) conversations with Kevin Koporec, USEPA Region IV Toxicologist, EPA currently recommends cleanup levels of 1,300 mg/kg for lead in industrial exposure scenarios.

Response:

Agree. Time to implement the alternative will be revised (see response to Gena Townsend's Comment Number 4 on the FS).

This is an item for further discussion. See the response to Linda Raynor's General Comment Number 1 on the Draft Final RI. Lead clean-up levels will be evaluated and any necessary changes to alternatives will be incorporated.

COMMENTS FROM LINDA RAYNOR, NCDEHNR (FS, PRAP, ROD)

NOTE: Since significant changes to these documents will be necessary because of the lead issue and because comments/corrections to the RI report also need to be incorporated into these documents, a detailed review of the text, tables and figures of these documents was not performed. Therefore, most of the comments provided herein are of a general nature.

1. **MCAS-Cherry Point representatives have indicated in recent meetings that the Air Station intends to use Site 7 for industrial land use purposes only, now, and in the future. However, the lead levels that exist in the soils are above acceptable human health levels, even for industrial scenarios. (Note: The ruling regarding potential risks on ecological receptors is still pending; awaiting comment by Joan Dupont of EPA.) Therefore, these lead contaminated soils need to be addressed in the Remedial Investigation (RI) Report (see my comments on the RI report) and in this Feasibility Study (FS), PRAP and ROD. The discussions, tables and figures regarding site contaminants, associated risks, preliminary remedial action goals, etc. need to be revised accordingly, throughout the documents.**

In addition, the feasibility study should include the evaluation of other alternatives (such as hot spot removal of lead contaminated soils, stabilization of contaminated soils, measures to restrict exposure to contaminated soils such as capping/pavement of contaminated soil areas, etc.) keeping in mind that monitoring of the groundwater, surface water and sediment will be required.

Upon recommending a remedial alternative, the costs and benefits associated with the reduction of risks to future residents vs. industrial workers should be evaluated. (For example, if the majority of the soils at Site 7 will require remediation and/or measures to restrict exposure to meet acceptable industrial risk levels, how much more would it cost to address the remaining soil areas where unacceptable risks exist for future residents? Considering the cost difference and benefits, should the actions that would be necessary to eliminate the risks posed to future residents be conducted at this time?)

Response:

This comment presents several items (future land use at Site 7 and lead screening levels) that require further discussion. See the response to Linda Raynor's General Comment Number 1 on the Draft Final RI.

2. **Please adjust the FS, PRAP and ROD, as necessary, to incorporate comments provided for the Remedial Investigative Report (dated Oct. 1995). Please provide quality control check to ensure consistency between the RI (text, tables and figures) and this set of documents.**

Response:

Agree. The comments received on the RI will be considered when revising the FS, PRAP, and ROD and the documents will be reviewed for consistency.

LINDA RAYNOR, NCDEHNR (FS/PRAP/ROD)
PAGE TWO

3. Please provide floodplain boundary information in the text and on the appropriate figures/plates of the RI, FS, PRAP and ROD.

Response:

Agree. The document will be revised.

4. Reduce redundancy, where applicable, to help avoid inconsistencies in text and tables.

Response:

Agree. The document will be reviewed to eliminate redundancy.

5. Using current and future land-use based risk assessments as management tools to help prioritize site cleanups is appropriate, however, if unacceptable risks exist for residential land use scenarios, any remedial actions performed that do not eliminate risks to residents will be considered as interim measures only. At this point in time, the NC Hazardous Waste Section (RCRA) has no regulations or guidance in place to allow for "Conditional Remedies" which may allow SWMUs to be cleaned up to industrial risk levels. (Under RCRA, SWMUs are generally cleaned up to residential risk levels (for soil) and Appendix IX PQLs, 1.0E-6 risk levels, or NCAC 2L standards (for groundwater)). Since the groundwater and soil contamination that exist at Operable Unit 3 pose unacceptable risks for future residents, the NC Superfund Section and the NC Hazardous Waste Section will not consider remedial actions that only address risks posed by an industrial land use scenario as final remedies. Therefore, the Record of Decision should be denoted as an "Interim Action Record of Decision."

Response:

This comment identifies an item for further discussion. What the ROD is called needs to be agreed to by all Partnering Team members.

6. The signature page in the ROD should not include the State Director's signature. The State will provide a concurrence letter that will be attached to the ROD.

Response:

Agree. The signature page will be revised.

7. The ARARs should be listed in the ROD.

Response:

Agree. A table including the ARARs will be provided in ROD.

LINDA RAYNOR, NCDEHNR (FS/PRAP/ROD)
PAGE THREE

8. The Decision Summary should include a Table of Contents and List of Appendices.

Response:

Agree. The text will be revised.

NOTE: The following FS issues were discussed in a telephone conversation with Linda Raynor of the NCDEHNR on March 6, 1996.

- **Acceptability of alternatives at OU3 will depend on the end use of Site 7. If it continues as it currently is (i.e, vacant land), then the area with lead levels above the 1300 mg/kg could just be fenced to prevent human contact with the soil in that area. However, if Site 7 is to be used for industrial activities (potential human contact with soil), then the soil exhibiting lead at levels above 1300 mg/kg will need to be remediated (capped or excavated, etc.).**

Fencing the area should be included in the FS as an alternative. If planned construction is expected in the near term (1 year), a sign(s) may be sufficient until the soil is capped/removed. Otherwise, the fence would be required.

- **Monitoring. In either case, the State will require monitoring of the groundwater, surface water, and sediment to determine if the soil continues to adversely impact the other media. Monitoring will consist of the following:**
 - **Surface Water - Quarterly monitoring for 2 years for TAL metals, cyanide, and semivolatile organics. Methods of analyses are identified in 40 CFR 136.**
 - **Sediments - Yearly monitoring for 2 years for TAL metals, cyanide, and semivolatile organics. May require elutriate methods (Linda thought they sounded like TCLP extraction and analysis. Will need to check with Diane Reid.).**
 - **Groundwater - Quarterly monitoring for 2 years for full TCL/TAL because of presence of compounds from all fractions in the previous groundwater samples.**

The State will need to review the Sampling Plan (sample locations, methods, procedures, etc.). All methods will have to be selected such that the detection limits are below state standards. Deborah Sawyer indicated that bioassays may be required at a later date, depending on the results of the monitoring.

LINDA RAYNOR, NCDEHNR (FS/PRAP/ROD)
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One thing to consider is if a cap is placed over the material and the monitoring indicates that the soil continues to impact the groundwater/surface water, the soil would still have to be removed. At that time, excavation will include the clean cap material as well as the contaminated soil.

- **Wetlands. Debbie Sawyer indicated that for the small wetland area within OU3 if it is less than 1/3 of an acre, nothing needs to be done about it if it is not adjacent to Section 10 waters (need to check with David Noble at MCAS Cherry Point on these distinctions).**

Response:

These items will be taken into consideration when the FS is revised.