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MCRD PARRIS ISLAND
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LETTER OF TRANSMITTAL AND U S EPA REGION IV COMMENTS ON DRAFT RECORD OF
DECISION FOR SITE 1 INCINERATOR LANDFILL AND SITE 41 FORMER INCINERATOR
MCRD PARRIS ISLAND SC
4/25/2006
U S EPA REGION IV

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY



REGION 4

61 Forsyth Street, SW
Atlanta, Georgia 30303

April 25th, 2006

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

4WD-FFB

Brigadier General Richard T. Tryon
Commanding General
Marine Corps Recruit Depot
P.O. Box 5028
Parris Island, SC 29905-9001

SUBJ: Draft Record of Decision (ROD) May 2002 for Site 1/SWMU 1 Incinerator Landfill and SWMU 41 Former Incinerator, Marine Corps Recruit Depot, Parris Island, South Carolina (OU1)

Dear General Tryon:

The U.S. Environmental Protection Agency Region 4 (EPA) received this draft OU1 Record of Decision (ROD) in 2002, and provided comments to the Navy (EPA Letter dated June 12, 2002). Shortly thereafter, the EPA and the Department of Defense (DOD) entered into a dispute regarding Post-ROD Authority. Around that same time EPA, the Navy, and the South Carolina Department of Health and Environmental Control (DHEC) were also negotiating a Federal Facilities Agreement (FFA). Due to these two issues there was a delay in further processing the draft OU1 ROD. EPA does not have a record of having received any Response To Comments (RTC) nor a revised ROD since that time. The dispute has since been settled and the FFA finalized. All parties are now ready to resume processing this draft OU1 ROD.

The attached comments are offered to assist the Navy in moving forward with finalization of the draft OU1 ROD. The comments are intended to accomplish the following:

- 1) Provide new comments directing the Navy to include language explaining the delay in processing this ROD.
- 2) Revise the June 12, 2002 comments previously submitted to modify comments regarding Land Use Controls (LUCs) to be worded more appropriately given the resolution of the Post-ROD Authority Dispute and to add comments requesting changes to the draft ROD necessitated by the resolution of the dispute. These include but are not limited to: eliminating references to and dependency upon the Land Use Control Assurance Plan (LUCAP) and Land Use Control Implementation Plans (LUCIPS); providing language which addresses LUCs, based upon the EPA/Navy LUC Principles and Procedures, as well as EPA's LUC Checklists. (For example see Specific Comment # 56.)
- 3) Revise the June 12, 2002 comments previously submitted to include those comments which are still relevant and exclude those which are not.
- 4) Provide additional comments to better align the ROD with EPA's ROD Guidance.

Please revise the May 2002 draft ROD for OU1 in accordance with the attached comments and submit a revised ROD within 30 days or no later than June 6, 2006, as prescribed by the currently approved Site Management Plan (SMP) schedule. As the draft ROD is being revised, please feel free to contact me regarding any questions you may have about these comments. I may be reached at 404-562-9969.

Sincerely,

Lila Llamas
Senior Remedial Project Manager
Federal Facilities Branch
Waste Management Division

cc: Stephen A. Beverly, USMCRD
Tim Harrington, USMCRD
Art Sanford, NAVFAC
Jerry Stamps, SCDHEC
Don Hargrove, SCDHEC
Stephen Hightower, SCDHEC
David Buxbaum, EPA Region 4

EPA Comments on the
Draft ROD Site 1/SWMU 1 and SWMU 41
MCRD Parris Island, SC
April 2006

General Comments:

1. The draft ROD generally follows the EPA guidance; however, certain required Sections (e.g., Current and Potential Future Land and Resource Uses, Selected Remedy and Statutory Determinations) are not well presented, and other included Sections are not required in RODs (Section 2.6 Nature and Extent of Contamination). Future RODs at the MCRD Parris Island should closely adhere to EPA's "Guide to Preparing Superfund Proposed Plans, Record of Decision, and Other Remedy Selection Decision Documents" (OSWER 9200.1-23P July 1999) [*hereinafter* ROD Guide] to expedite review and minimize the extent of comments. Use of suggested language in the ROD Guide Highlight Text Boxes is advised. Many of the Specific Comments below are based upon the EPA ROD Guide that is derived in part from the requirements in the NCP at 40 CFR Part 300 and CERCLA.
2. In the future, consider ways to streamline RODs and reduce the amount of redundant language that can be found in previous documentation such as RI/FS Reports. This deletion of unnecessary detail is especially applicable to Sections 1.3 and 2.5 of this ROD. This is a relatively straight-forward response action and most of the work has been completed to date; so a lengthy document is not needed, if you choose to reduce it.
3. A summary paragraph should be included in the ecological risk assessment portions of the report that describes the process used to go from the initial description of COPCs (as presented in Table 2-8) to those for which Cleanup Levels were developed (Table 2-9 and a new Table for groundwater. See next comment). Once this process has been discussed, a final list of COCs for the site should be presented. Also, additional text should be included to clarify how Cleanup Levels were selected for ecological COCs. The scientific basis and risk management decisions that drove the selection of those values should be summarized and presented in this ROD.
4. In addition, a final groundwater COC table is needed, similar to the sediment/soil table presented as Table 2-9. Tables 2-6 and 2-8 only present the COPC list for multiple media. As the project moves into Long Term Monitoring, Table 2-9 will be used to determine which contaminants are monitored in sediment and to establish acceptable contaminant levels. Likewise, a groundwater COC table is needed to address monitoring for groundwater contaminants and to establish acceptable contaminant levels (surface water ambient water quality criteria?, SW ESVs?, GW MCLs?). (Also see Specific Comment # 19 and 55.)
5. Many of the Specific Comments related to Land Use Controls are based upon the Department of Navy and EPA "Principles and Procedures For Specifying, Monitoring, and Enforcement of Land Use Controls and Other Post-ROD Actions" (October 2003) [*hereinafter* LUC Principles] and the EPA Headquarters Federal Facility Restoration and

Reuse Organization Checklist¹ [*hereinafter* Checklist].

Specific Comments:

1. Page iii, Table of Contents. Delete Appendix A from the Table of Contents since the LUC Remedial Design (RD) will be submitted in lieu of the LUCIP. Renumber Appendices and change all references appropriately as necessary, via a search in the electronic file. (See Specific Comments # 18, 30, 32 and 56. Portions of specific language from The LUCIP will be needed in the ROD and LUC RD.)
2. Page v, List of Acronyms. Delete the terms “LUCAP” and “LUCIP” from the list as well as throughout the document.
3. Page 1-1, Section 1.1, Second Paragraph. The Superfund site identification number for MCRD Parris Island is 04NY03488.
4. Page 1-1, Section 1.2. Section Title should read “Statement of Basis and Purpose”.
5. Page 1-1, Section 1.2. Change the first sentence to read “This decision document presents the selected remedy....” Change the second sentence to read as follows: “The remedial action was selected by the Navy and EPA in accordance with.....” Change the last sentence to read as follows: “The State of South Carolina concurs with the selected remedy for Site 1 and SWMU 41.”
6. Page 1-1, Section 1.2. 3rd Sentence. Add the word ‘file’ after Record. Delete the phrase “on file” and replace with the word ‘located’.
7. Page 1-1, Section 1.2. Add the following as the last paragraph: “After the Proposed Plan was published and public comments received, negotiation between U.S. EPA and the Navy on post remedial action activities, in particular Land Use Controls, delayed the agencies' ability to finalize the Record of Decision (ROD). The agencies agreed, however, on the active component of the remedy and implemented the remedy as proposed. Therefore, although some language in the ROD may be in the present tense, many of the required actions have, in fact, been implemented.”
8. Page 1-1, Section 1.3, new first paragraph. See ROD Guide p.6-3 and insert language from the Highlight 6-3. Consider accomplishing this by moving language from Section 2.8 of the ROD into Section 1.3 as follows: “The response action selected in this ROD is necessary to protect the public health or welfare and the environment from actual or threatened releases of pollutants or contaminants from this site that may present an imminent and substantial endangerment to public health or welfare.”
9. Page 1-1, Section 1.3. Consider either deleting or relocating the entire remaining text to another Section, perhaps split between Section 2.6, Nature and Extent of Contamination, and Section 2.7 Summary of Site Risks, if at all.

¹ SAMPLE FEDERAL FACILITY LAND USE CONTROL ROD CHECKLIST WITH SUGGESTED LANGUAGE.

10. Page 1-2, Section 1.3, 1st Paragraph, Next to last sentence. If this language remains in the ROD anywhere, please clarify that EPA considers carcinogenic risks lower than 1 in 1,000,000 to meet free-release criteria, and that risks within the risk range (1.0E-06 to 1.0E-04) may be managed.
11. Page 1-2, Section 1.3, 2nd and 3rd Paragraphs. If this language remains in the ROD anywhere, please add a reference to Table 2-7 and the Table in Section 2.7.2 which show the actual risk values.
12. Page 1-3, Section 1.3, 2nd Paragraph. Regardless of the final destination of this language, somewhere in the ROD the list of chemicals of concern needs to be stated in the text and the receptors that have had risk shown also need to be listed in the text. This would most appropriately be in the Decision Summary.
13. Page 1-3, Section 1.4. Add an introductory paragraph that briefly summarizes the major components of the remedial action as well as describes how it addresses source materials. Refer to ROD Guide pp. 6-3 and 6-4. The following language, modeled after language from the Proposed Plan, is suggested:

“Approximately 46 sites at MCRD Parris Island are being investigated under the Installation restoration (IR) Program. This Record of Decision addresses Site 1 and SWMU 41; the remaining 44 sites will be addressed separately.

Based upon the risk assessments undertaken during the study of Site 1 and SWMU 41, the soils of Site 1 and SWMU 41 and sediment and surface water of Site 1 currently pose risk to human health and the environment (see Table 2-7 and the Table in Section 2.7.2). As a result, a remedial action has been selected for Site 1 and SWMU 41 to reduce these risks. Waste and sediment containing chemicals in excess of cleanup goals for pesticides, PAHs, and inorganics will be excavated from the outside perimeter of the landfill and consolidated on site. A landfill cap will be constructed at Site 1 that will reduce human and ecological contact with waste and contaminated soil and sediment. Waste and contaminated soil and sediment will no longer be in direct contact with surface water, resulting in a reduced transport of contaminants to surface water.”

14. Page 1-3, Section 1.4., 1st Bullet. Need to specify that maintenance of the cap system is also part of the action and what type activities will be conducted. (e.g. mowing grass, removing trees, etc.) and how long the maintenance will be performed (e.g., 30 years). Alternatively, state commitment of Navy to provide the details of the maintenance activities in the Long Term Monitoring Plan or similar document by stating, “During the Remedial Design/Remedial Action process, a Long Term Monitoring Plan for groundwater, sediment, and O&M (cap maintenance, etc.) will be developed and submitted for review and approval” either here or in the bullet with Long Term Monitoring.
15. Page 1-4, Section 1.4, 1st Paragraph, 2nd Bullet. Change Acommon@ to Anative@
16. Page 1-4, Section 1.4, 1st Paragraph, 3rd Bullet. After Athen@ insert the following text
Athe vegetation and sediment will be...@.

17. Page 1-4, Section 1.4., 4th Bullet. Separate Land Use Controls and Long Term Monitoring into two separate bullets. Then for each, specify the documents to be submitted for review and approval (e.g., O&M Plan, LTM Plan, LUC RD) that will provide the details of these activities, and the frequency at which each will be reported upon.
18. Page 1-4, Section 1.4, 4th Bullet. In the bullet which becomes LUCs, summarize the specific LUCs that are part of the remedy (e.g. fence or signs, base no-dig restrictions procedures, deed restrictions if parcel transferred, etc.), where they will be necessary. Add a brief paragraph following the bullet to read as follows: “LUCs will be implemented and maintained by the Navy until the concentration of hazardous substances in the soil and groundwater are at such levels to allow for unrestricted use and unlimited exposure. Within 90 days of the ROD approval, a LUC remedial design, as part of the RDWP (a primary document under the FFA), that provides the details for implementation, maintenance, monitoring (including periodic inspections), enforcement and reporting on of LUCs will be prepared and submitted by the Navy to EPA and SC DHEC for review and approval.” [This is intended to summarize requirements from LUC Principles and Checklist #5, 6, 7, and 9] (See Specific Comment #1, 30, 32 and 56).
19. Page 1-4, Section 1.4, 4th Bullet. In the bullet which becomes Long Term Monitoring, it is imperative that this bullet link to the existing Table 2-9 which is used to determine which contaminants are monitored in sediment and to establish acceptable contaminant Cleanup Levels. Likewise, the bullet needs to link to a groundwater COC table which addresses monitoring for groundwater contaminants and establishes acceptable contaminant levels (surface water ambient water quality criteria?, SW ESVs?, GW MCLs?) for groundwater contaminants which will be monitored. Refer to General Comment #4 above.
20. Page 1-4, Section 1.4, 1st Paragraph, after last Bullet. Additional text should be added to summarize the expected outcome of implementing the action in terms of timeframes and resource recovery. This would include that remedial goals would be achieved within one year, that 1.8 acres of wetlands would be created or restored, and that robust provisions will be in place to ensure long-term protectiveness.
21. Page 1-4 and 1-5, First Three Full Paragraphs. Delete portions of the text about MOA and LUCAP. Details on the LUCs will be provided in a new subsection of Section 2.10, to be rewritten as suggested in additional Specific Comments below.
22. Page 1-5, Section 1.5. Revise the last sentence to read as follows:

“The remedy will result in hazardous substances, pollutants, or contaminants on-site above levels that allow for unlimited use and unlimited exposure; therefore, in accordance with Section 121© of CERCLA and NCP§300.430(f)(5)(iii)(c), a statutory review will be conducted within 5 years of initiation of remedial action, and every 5 years thereafter, to ensure that the remedy continues to be protective of human health and the environment.”
23. Page 1-6, Section 1.7. Delete Title text and replace with “AUTHORIZING SIGNATURES”. Add a signature block for EPA since we also approve the remedy with

the Navy [Refer to LUC Principles and 40 CFR 300.430(f)(4)(iii)(A)].

24. Page 2-2, Section 2.2. Add Subsections 2.2.1 *Site History* and 2.2.2 *Enforcement Activities*. Relocate the Site 1 and SWMU 41 text into the new 2.2.1 and consider a brief introductory paragraph that generally describes the MCRD Parris Island history. Delete from paragraphs 2 and 3 the statements “No regulatory actions have been undertaken at Site 1” and “No regulatory actions have been undertaken at SWMU 41.” Include in this section bullet numbers 4 thru 7. Add a brief introductory paragraph to new Section 2.2.2 and include bullet numbers 1 and 3. Add to the list in bullet form and briefly describe any RCRA permit applications. Also add to the list, including but not limited to (correct the dates if necessary):
- Hazard Ranking System (HRS II) scoring was completed in May of 1992, yielding a score of 71.59. The installation was rescored by EPA in August 1994 yielding a score of 50.00.Ha
 - MCRD Parris Island was proposed for inclusion on the National Priorities List on July 23, 1994 and was listed on December 16, 1994.
 - The appropriate Federal Register Notice appeared on January 17, 1995.
 - A Federal Facilities Agreement was signed in January 2005, and made effective on March 31st, 2006.
25. Page 2-3, Section 2.3. Add the following sentence, if accurate, to the first paragraph: “The Depot has performed public participation activities in accordance with CERCLA and to the extent practicable the NCP throughout the CERCLA site clean-up process.”
26. Page 2-3, Section 2.3. Describe whether there have been any Technical Review Committee or Restoration Advisory Board meetings where an overview of the proposed action was presented. Also, describe if any fact sheets, newsletters or other print/electronic media was distributed or made available to the local community.
27. Page 2-4, Section 2.4. Indicate whether there have been any known previous actions, other than those specified as part of this selected remedy (e.g., Site 1/SMWU 41 maintenance actions, other waste consolidation or removal, etc.) taken at the site to mitigate risks and how these actions are consistent with the selected remedy. Clearly state how the remedial action for this OU fits within the overall MCRD site cleanup strategy. To further clarify the overall site strategy, add the following sentences, if accurate, to the first paragraph: “Contaminated areas are being assessed, organized into OUs, and addressed in relative risk order, starting with those sites with generally higher risk, followed by those of generally lower risk. EPA has designated Site 1 and SWMU 41 as Operable Unit 1 for purposes of tracking within CERCLIS.” Also add a paragraph that describes how this CERCLA action satisfies any SCDHEC RCRA requirements for corrective action consistent with the FFA Section VI. RCRA/CERCLA Integration. [Refer to ROD Guide 6-8 and 6-9.]
28. Page 2-4, Section 2.4, 3rd Paragraph. The phrase “slightly impacted or affected by site contaminants” does not accurately describe residual contaminant levels in surface or ground water. Delete this phrase in this Section (and throughout the document for that matter) and instead use language that reflects whether the residual contamination is

acceptable or not, [i.e, the concentrations of contaminants in (surface/ground water or soils) are below risk-based or ARAR derived concentrations]. Alternatively rewrite sentence to reflect why groundwater is unusable (e.g., due to high salinity) and delete the phrase “and other groundwater contact pathways are minor”.

29. Page 2-7, Section 2.5.3, 1st Paragraph, 3rd Sentence. As stated in subsequent portions of the ROD, the high salinity of shallow groundwater at Site1 is also a major contributor to the determination that groundwater is non-potable. Revise the text to reflect this.
30. Page 2-6, Section 2.5.3. In the existing Section 2.5.3, be sure to include text which documents risk exposure assumptions. Then create a Separate Section in the Decision Summary entitled *Current and Potential Future Land and Resource Uses* as opposed to combining with Section 2.5.3. This new Section (which includes the second paragraph of 2.5.3) should describe the “reasonably anticipated land uses”, as well as any known prohibited uses. For example, where “unrestricted industrial” use is anticipated, list the prohibited uses such as on-site day-care centers, recreation areas, etc. [Refer to ROD Guide p 6-12 for tips on writing this Section] You may find it useful to take language from the selected remedy description and/or the LUCIP, regarding LUCs (e.g. restricted industrial use (restrict human contact with waste material, no unauthorized soil disturbance activities, no construction except as permitted by MCRDPI, EPA, SCDHEC), no residential use nor daycare facilities, no drinking gw, no unpermitted wells, no gw extraction...). [See Checklist #2] (Also see Specific Comment # 1, 18, 32 and 56)
31. Page 2-9, Section 2.6. Delete this Section in its entirety since not expected in the ROD and move pertinent information, if any, into other Sections (e.g. references to Tables 2-1 through 2-5, and or remove those tables as well, renumber Table and update references.)
32. Page 2-10, Section 2-7. Somewhere in this Section, please describe the risks necessitating the application of LUCs. [See Checklist #3] (Also see Specific Comments # 1, 18, 30, and 56.)
33. Page 2-11, Section 2.7.1, 4th Paragraph, 2nd Sentence. please clarify that EPA considers carcinogenic risks lower than 1 in 1,000,000 to meet free-release criteria, and that risks within the risk range (1.0E-06 to 1.0E-04) may be managed.
34. Page 2-12, Section 2.7.1, 6th Paragraph, 2nd Sentence. A statement must be added to the text after this sentence, such as: A Similarly, since waste materials were not sampled, the defined risks may under-represent actual site risks.@
35. Page 2-14, Section 2.7.2, 2nd Paragraph. The text needs to state that risks are also present to terrestrial and aquatic plants, soil invertebrates, and benthic receptors, as represented in the table.
36. Page 2-14, Section 2.7.2, unnumbered table. This table should be revised to include which contaminants produced the elevated HQs. The contaminants present in this table should correspond with the list of final COCs. In addition, in the first cell in the Hazard Quotients column two different values for the HQ for surface water are presented. Revise the table.

37. Page 2-15, Section 2.8. See comment regarding Page1-1 Section 1.3, first paragraph.
38. Page 2-15 Section 2.8.1 2nd Bullet. Consider changing the first word in the second RAO to “Reduce” as opposed to ‘Eliminate’ since that is not likely to occur with just a cap on the source material. It will be easier to achieve reductions than demonstrate elimination of migration.
39. Page 2-15 Section 2.8.1 5th Bullet. Delete this RAO since the requirement to comply with ARARs is threshold statutory requirement for all CERCLA response actions. ARAR compliance is not an objective that the team can establish but must be considered in evaluating alternatives and ultimately met for the selected remedy. [See Comment regarding Section 2.11]
40. Page 2-15 Section 2.8.1 Last Paragraph. This entire paragraph needs to be rewritten to reflect that media-specific “remediation goals” (i.e., cleanup or remediation levels) as required by 40 CFR 300.435(f)(5)(iii)(A) and described in 40 CFR 300.430(e)(2)(i) were established and will be measured through periodic monitoring. The remediation goals are usually ARAR based or risk-based concentrations for the COCs that will be met at a specified “point(s)-of-compliance”. For example, the edge of the groundwater plume, at the boundary of the landfill, throughout the water column, at discharge point, or at designated sampling sites within a stream. Search and replace the term RGO throughout the document (including any tables, e.g. Table 9) since it is not properly defined or used.
41. Page 2-15 Section 2.8.1 Last Paragraph. Discussion should be added to clarify how the ecological Cleanup Levels were selected (include gw levels if appropriate). It is unclear why the results of the food chain models are discussed in this ROD when all the ecological Cleanup Levels are either EPA Region 4 ecological screening values (ESV) or background values.
42. Page 2-16, Section 2.8.2, 3rd Paragraph, 2nd Bullet. The second Aof@ should be changed to Afor.@"
43. Page 2-16 Section2.8.2. Alternative 2A last Bullet. Separate implementation of LUCs from the long-term monitoring of groundwater, 5-Year review of the site, and O&M of the cap system since these are all distinct aspects of the remedy, except the 5-year Review. Such reviews are required to be performed by the Navy pursuant to CERCLA and the NCP for response actions that leave residual contamination above levels that allow for unrestricted use and unlimited exposure and therefore should not be part of the remedy. Also, the O&M of the cap should be included in the fourth bullet for installation of the cap system. In other words, the action is “Installation and maintenance of low-permeability cap system...” [See Specific Comments regarding Section 1.4 above]
44. Page 2-19 Section 2.8.3. Delete this Section and relocate the paragraph to the new Subsection 2.11 “Compliance with ARARs” and provide references to ARARs Tables in the “Compliance with ARARs” section on p. 2-21 or in the Selected Remedy Section. (See Specific Comment #59).

45. Page 2-24 Section 2.10 Selected Remedy. This Section must be rewritten to closely follow the EPA guidance especially in having four distinct Sections; 1) Summary of the Rationale for the Selected Remedy, 2) Description of the Selected Remedy, 3) Summary of Estimated Remedy Costs, and 4) Expected Outcomes of the Selected Remedy. [Refer to ROD Guide pp.6-40 thru 6-48.
46. Page 2-20, Section 2.8.4, Overall Protection..., 2nd Paragraph, Third Sentence. After Ahuman health@, insert Aand the environment@. After Apreventing@, delete Ahuman@.
47. Page 2-21, Section 2.8.4, Compliance with ARARs, 4th Paragraph. Add text which details the differences between how the coastal wetlands would be restored under the different alternatives. Similar to the more detailed description in Paragraph 2 of the same subsection.
48. Page 2-24, Section 2.10, 1st Paragraph. Text should be added to highlight why Modified Alternative 2a was selected. This should include the balance achieved among the various criteria and any trade-offs made (e.g., no unrestricted use, no treatment, etc.).
49. Page 2-24, Section 2.10, 2nd Paragraph, 3rd Sentence. Clarify that a portion of the sediment excavated under the selected remedy is also for the protection of human health (as indicated in the remedy description on page 2-17).
50. Page 2-25 Section 2.10. Add language to the first paragraph per ROD Guidance p. 6-40 thru 6-41 that describes the components of the response action to be taken. See earlier Comment #17 on breaking-out LUCs from Long-Term Monitoring and Maintenance of the Cap.
51. Page 2-25, Section 2.10, 2nd Paragraph, 2nd Sentence. Change Aover@ to Aabove@.
52. Page 2-25, Section 2.10, 4th Paragraph, 1st Sentence. Change Acommon@ to Anative@.
53. Page 2-25, Section 2.10, 4th Paragraph, 2nd Sentence. After Athen@ insert the following text Athe vegetation and sediment will be@.
54. Page 2-25, Section 2.10, 5th Paragraph. Separate Land Use Controls and Long Term Monitoring into two separate paragraphs. Then for each, specify the documents to be submitted for review and approval (e.g., O&M Plan, LTM Plan, LUC RD) that will provide the details of these activities, and the frequency at which each will be reported upon.
55. Page 2-25, Section 2.10, 5th Paragraph. It is imperative that the resulting paragraph addressing Long Term Monitoring link to the existing table for sediment Cleanup Levels for long term monitoring and be linked to a new table for groundwater contaminants which will be monitored. Refer to General Comment 4.
56. Page. 2-25 Section 2.10 Land Use Controls Bullet. Delete all existing text related to LUCs due to its reliance upon the LUCIP and replace with language that addresses the following requirements from the LUC Principles/Procedures and the Checklist. [Refer to

LUC Principles Page 3, General Procedures #2, Bullet #1; and Checklist #1, 2, 5, 6, 7, and 9] (Also see Specific Comment #1,18, 30, and 32).

- Principles - General Procedures sub-bullet 2; Checklist #2: Document risk exposure assumptions and reasonably anticipated land uses, as well as any known prohibited uses which might not be obvious based on the reasonably anticipated land uses. (For example, where “unrestricted industrial” use is anticipated, list prohibited uses such as on-site company day-care centers, recreation areas, etc. Also see examples in Navy Principles Page 7) (See Specific Comment #30 for details.)
- Principles - General Procedures sub-bullet 1; Checklist #3: Describe the risk(s) necessitating the LUCs. (See Specific Comment #32 for details.)
- Principles - General Procedures sub-bullet 4; Checklist #4: Provide clear and concise LUC Performance Objectives. Examples: Prohibit residential use of the Site 1; Ensure no construction on, excavation of, or breaching of the landfill cap system; and Prevent access or use of the groundwater; etc.
- Principles - General Procedures sub-bullet 6; Checklist #1: Must include a map/figure in the ROD showing the boundaries of the LUCs as well as a description of the area/property covered by the LUC. Revise Fig. 2-8 on p.2-59 to delete the term LUCIP and consider identifying the LUCs.
- Principles - General Procedures sub-bullet 3; Checklist #5: Describe each of the LUCs being relied upon in this remedy (e.g. fence and/or signs, base no-dig restrictions procedures, deed restrictions if parcel transferred. etc.) and where they will be necessary (reference the map in the previous bullet.)
- Principles - General Procedures sub-bullet 3; Checklist #5: Generally describe the logic for each LUC and any related deed restrictions/notifications.
- Principles - General Procedures sub-bullet 7: Provide the expected duration of the LUCs, (e.g. signs/fence to be maintained as part of the long-term maintenance of the landfill cap for 30 years, groundwater use restrictions expected to remain until the concentration of hazardous substances have been reduced to levels that allow for unlimited exposure and unrestricted use).
- Principles – Main Bullet #2 and 3; Checklist #6: Include the following language: “LUCs will be implemented and maintained by the Navy until the concentration of hazardous substances in the soil and groundwater are at such levels to allow for unrestricted use and unlimited exposure.”
- Principles - General Procedures sub-bullet 5; Checklist #7: Include the following language: “The Navy is responsible for implementing, maintaining, reporting on, and enforcing the LUCs.”
- Principles - General Procedures sub-bullet 8; Checklist #9: Include the following language: “A LUC Remedial Design (LUC RD), as an Addendum to the RAWP (a primary document under the FFA), that provides the details for LUC implementation and maintenance actions, including periodic inspections, monitoring, reporting on, and enforcement of LUCs, will be prepared and submitted by the Navy within 90 days of the ROD approval, to EPA and SCDHEC for review and approval. Once the final LUC RD is approved by the EPA, it shall supercede any Land Use Control

Implementation Plan already developed for these sites, as well as the LUC Memorandum of Agreement (also termed Land Use Control Assurance Plan) executed between the Navy, U.S. EPA and State of South Carolina and dated _____." (Please insert LUCAP date.)

- Currently, it is believed that Checklist #8 is not applicable. If this is not the case, please include the necessary information.

57. Page 2-26, Section 2.10, last Paragraph. Additional text should be added to summarize the expected outcome of implementing the action in terms of timeframes and resource recovery. This would include that remedial goals would be achieved within one year, that 1.8 acres of wetlands would be created or restored, and that robust provisions will be in place to ensure long-term protectiveness.
58. Page 2-26 Section 2.11. This Section needs to be rewritten to clearly identify the two threshold requirements for a CERCLA response action (See 40 CFR Part 300.430(f)(1)(i)(A)) and how the selected remedy meets them. Accordingly, add subsections for "Protection of Human Health and the Environment" and "Compliance with ARARs". Also, add subsections for "Cost-Effectiveness", "Utilization of Permanent Solutions and Alternative Treatment Technologies", "Preference for Treatment as a Principal Element", and "Five Year Review Requirements". [Refer to ROD Guide p 6-48 6-56 and accompanying Highlights 6-36 and 6-37]
59. Page 2-27 Section 2.12. Refer to ROD Guide pp.6-53 and 6-57 as well as Highlight 6-38. Delete the "U.S. EPA Region 4" from the second sentence since we have selected the remedy along with the Navy. Include the following text or some variation thereof as the first sentence of the first paragraph: "CERCLA Section 117(b) requires an explanation of significant change from the selected remedy presented in the Proposed Plan that was published for public comment. Although, in this ROD there are no significant changes to the selected remedy included in the Proposed Plan."
60. Page 2-40, Table 2-7, Adult Resident, 1st and 3rd Rows, Last Column. The existence of elevated hazard indices is indicated for two chemicals, but the chemical names were omitted. Please revise accordingly.
61. Page 2-43, Table 2-9. A more accurate rationale should be included for not developing a sediment RGO for arsenic. Currently the table incorrectly states that the maximum concentration (18.8 mg/kg) is below the RGO. However, the maximum arsenic concentration exceeds both the site background value and the Region 4 ESV.
62. Page 2-48, Table 2-11, Action-Specific ARARs, 1st Row, 3rd Column. Based on the description and cost estimate for the selected remedy, well abandonment and well installation are both activities that will be performed. For this reason, it seems R.61-71 should be considered applicable rather than potentially applicable.
63. Page 2-49, Table 2-11, Action-Specific ARARs, 8th Row, 3rd Column. Based on the description for the selected remedy, land disturbance activities requiring stormwater management will be performed. For this reason, it seems R.72-300 and R.72-405 should be considered applicable rather than potentially applicable.

64. Pages 2-44 thru 2-49 Tables 2-10 and 2-11. The ARARs Tables should be combined into one table since only need to identify State requirements *that are more stringent* [emphasis added] than the federal ones. Consider adding the SC regulatory or statutory citation along with the federal Act or regulation. Many of the Table entries need to be deleted such as the EPA guidance documents and the benchmark values. The Table should only list the federal and South Carolina requirements that are either “applicable” or “relevant and appropriate”, as well as any specific TBC that provides a contaminant specific concentration such as Health Advisories for the COCs at this site. The ARAR evaluation process that should have been conducted during the RI/FS would eliminate many of the entries on these tables and the ROD should only contain the site-specific ARARs for this remedial action. Compliance with ARARs is required by CERCLA and great care should be taken in identifying the actual ARARs that EPA and/or the State could enforce if violations occur. Suggest that the document drafter read closely EPA’s “Compliance with Other Laws Manual” [Interim Final OSWER Directive 9234.1-01, August 8, 1988], as well as the “Compendium of CERCLA ARARs Fact Sheets and Directives” jointly published by EPA and the Department of Energy [EPA Publication 9347.3-15, October 1991] *NOTE: The EPA Attorney, David Buxbaum is willing to discuss ARAR development with the document drafter and assist in the proper selection of ARARs for this remedy.*
65. Appendix A LUCIP. Delete in its entirety. (See Specific Comment #1, 18, 30, 32 and 56 above. Relocate specific language from Appendix A into Section 1.4 and 2.10 as appropriate.)