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MCRD PARRIS ISLAND
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LETTER OF TRANSMITTAL AND U S EPA REGION IV COMMENTS ON DRAFT BASIS OF
DESIGN REPORT FOR SOIL AND SEDIMENT REMEDIATION AT SITE 1 INCINERATOR
LANDFILL AND SITE 41 FORMER INCINERATOR MCRD PARRIS ISLAND SC
2/27/2002
U S EPA REGION IV



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

FEB 27 2002

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

4WD-FFB

Brigadier General Joseph J. McMenamin
Commander
Marine Corps Recruiting Depot - Parris Island
P. O. Box 19001
Parris Island, SC 29906-9001

SUBJ: Draft Basis of Design Report for Soil and Sediment Remediation
Site/SWMU 1 Incinerator Landfill and SWMU 41 Former Incinerator
Marine Corps Recruit Depot Parris Island, South Carolina
EPA ID#: SC6170022767

Dear General McMenamin:

The U.S. Environmental Protection Agency (EPA) has received and reviewed the above referenced document. EPA's comments are enclosed. The comments must be completely and satisfactorily addressed before the document can be approved and considered final.

If I can be of assistance in any way or you have questions regarding this issue, please call me at (404)562-8506.

Sincerely,

Robert H. Pope
Federal Facilities Branch
Waste Management Division

cc: Tim Harrington, MCRD
D Scaturo, SCDHEC
Don Hargrove, SCDHEC
Art Sanford, NAVFAC

February 27, 2002

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General Comments

1. The scope of work presented in the Basis of Design Report (BODR) accurately reflects the general design elements necessary to implement the preferred alternative presented in the Proposed Plan for this action.
2. There are a number of minor typographical and editorial errors (e.g., pagination) that should be corrected prior to re-issuance of the report.

Specific Comments

1. Page 3, Section 1.1, 1st Paragraph, 1st Sentence. Clarify that the Navy does not plan for CCI to complete the Remedial Design and Remedial Action Work Plan for this action. There are several elements of the BODR that could be specified in more detail, but this is inappropriate for the BODR because another contractor will be completing the design and work plan. EPA expects that all of these details will be sufficiently fleshed out in the 60% and the 90% design documents.
2. Page 5, Section 1.3.2, 3rd Paragraph, Bullets 1 and 2. Consistently use "cap system" to describe the proposed landfill cap component of the remedy. The current revision of the Proposed Plan switches back and forth too often between the terms "landfill cap" or "cap system" which makes the document unnecessarily confusing.
3. Page 3 (sic. 8), Section 2.2, 1st Paragraph. The minimum thickness of the proposed cap system (i.e., clean cover) over the waste materials must be specified at this point. This thickness should meet the requirements and expectations of South Carolina DHEC Solid Waste guidelines (18 or 24 inches).
4. Page 4 (sic. 9), Section 2.3, 1st Paragraph, 5th Sentence. Clarify the basis used for defining the high tide mark (e.g., mean high tide or maximum high tide) and specify the height of the allowance for wave action. It is necessary for all excavated wastes to be placed above the maximum high tide mark.
5. Page 4 (sic. 9), Section 2.5, 1st Paragraph, 1st Sentence. Clarify the reference to deed restriction for the site. Specifically, is the Navy planning to file a deed restriction with Beaufort County as part of this action, or is the restriction incorporated in the facility Master Plan to be filed if the property is transferred?
6. Page 4 (sic. 9), Section 2.5, 1st Paragraph, 2nd Sentence. The land use controls also will include elements of the Operation and Maintenance (O&M) of the landfill for an indefinite period. A statement to this effect should be included along with reference to the O&M Plan.
7. Page 4 (sic. 9), Section 2.5, 1st Paragraph, 3rd Sentence. The methods for implementing, enforcing and monitoring these restrictions should be provided in

more detail. For example, if signs will be posted to limit fishing in the area, then the BODR should include sign installation and a commitment to inspect and maintain the signs for as long as the land use controls are necessary. This should be consistent with the Land Use Control Implementation Plan (LUCIP) for the site. The LUCIP must also be referred to once it has been developed and included in the forthcoming Record of Decision (ROD).

8. Page 5 (sic. 10), Section 2.5, 1st Paragraph, 2nd Sentence. Reference to the Long-term Monitoring (LTM) Plan should be included at this point. Additionally, a reference to the 5-Year Review process also should be incorporated in this section.
9. Page 5 (sic. 10). An additional sub-section, for example 2.6 Schedule, should be added to this section to present and discuss the schedule for this action. The schedule should include milestones (e.g., RDR/RAWP submittal, RA start), expected durations, critical path assumptions, and any other limitations or restrictions on the schedule (e.g., Bald Eagle nesting season, rainy season, etc.).
10. Page 6 (sic. 11), Section 3.1, 1st Paragraph. Clarify the sequence of design submittals anticipated for this action. It appears the intent is to provide a draft (i.e., 90% design) and final Remedial Design (RD) Report. The omission of the 30% and 60% design reviews should be explained. As a result of the changing of contract mechanisms, both a 30% and a 60% design may be required to be submitted. Assumptions should not be made in the current BODR regarding forthcoming phases of design and accompanying documentation. Additionally, a sixth bullet should be added to the overview to present the proposed documentation and reporting for this action. The Remedial Action Work Plan (RAWP), LUCIP, O&M Plan, LTM Plan, and Remedial Action Report (RAR) all contribute to the documentation and implementation of this action.
11. Page 7 (sic. 12), Section 3.2.1, 1st Paragraph. Clarify the relationship of the Post-Closure Care Plan to the O&M Plan for this action.
12. Page 7 (sic. 12), Section 3.2.1.1, Assumptions, 2nd Bullet. Clarify how "specimen" trees will be identified.
13. Page 7 (sic. 12), Section 3.2.1.1, Assumptions, 3rd Bullet. Clarify whether this also applies to overhead utility clearances.
14. Page 8 (sic. 13), Section 3.2.1.2, Design Criteria, 1st, 2nd and 4th Bullets. Specific references to the requirements or standards cited in the text should be included.
15. Page 8 (sic. 13), Section 3.2.1.2, Assumptions, 2nd Bullet. As appropriate, replace "CCI" with a phrase such as "the implementing contractor".

16. Page 9 (sic. 14), Section 3.2.2, Design Criteria, 3rd Bullet. Additional detail should be provided to clarify the technical approach to defining the depth of excavation and whether this is expected to be an iterative process (e.g., Contaminated sediment will be excavated to the visual limit of waste materials or to a depth of 1-ft. Following performance verification sampling, any additional sediment would be removed in 1-ft lifts.). Additionally, reference should be made to the RAWP for definition of the density of verification samples. It is anticipated that this would be defined using a technically defensible basis. Reference to "2 samples per acre" should be omitted or described as a basis for cost estimating only.
17. Page 10 (sic. 15), Section 3.2.3, 1st Paragraph, 3rd and 5th Bullets. Please verify that this translates to a minimum thickness of 26-in of clean cover material over all waste.
18. Page 11 (sic. 16), Section 3.2.3.2, Design Criteria, 2nd Bullet. Specify a minimum value for the criterion of "well above" high water elevation.
19. Page 12 (sic. 17), Section 3.2.3.3, 1st Paragraph, 2nd and 3rd Bullets. Clarify that the intent of the proposed design is to meet both of these requirements through the installation of a single 18-in layer of earth fill material as an infiltration and erosion/vegetative cover layer.
20. Page 13 (sic. 18), Section 3.2.4, Design Criteria, 1st Bullet. Clarify that the design basis for the subgrade beneath the downgradient toe of the landfill requires no stabilization beyond compaction of the underlying sediment wastes (see Section 3.2.3.1). While the geotechnical investigation report included at Appendix C indicates these materials would be suitable for supporting the load of typical construction equipment; it is unclear that this translates to the long-term stability of the landfill slopes (particularly if these materials are saturated and wave-loaded during a high tide). Please comment.
21. Page 15 (sic. 20), Section 3.2.6. An additional sub-section, for example Section 3.2.7 Documentation and Reporting, should be included to summarize the content and sequencing of the submittals presented in Specific Comment 10.
22. Appendix B. Some additional specifications that would seem to be required, include: Fill Materials (source, selection, and characterization); Compaction and Compaction Testing; Soil Mixing and Amendments; and, Salt Marsh Restoration. If these topics are not included as specifications, then the relevant information should be included in the RD Report.
23. Appendix C, Settlement of Landfill Cap. The referenced drawing (C-??) does not appear to be included in the BODR unless this refers to C-2, the conceptual final grading plan, please clarify. The analysis summarized in the second paragraph regarding differential settlement should be included in the body of the BODR.

The calculations which substantiate this settlement analysis, including the timeframe and loading conditions assumed, should be included in this Appendix.