

M00263.AR.000390  
MCRD PARRIS ISLAND  
5090.3a

U S NAVY RESPONSE TO U S EPA REGION IV COMMENTS ON DRAFT RECORD OF  
DECISION FOR SITE 12 JERICHO ISLAND DISPOSAL AREA MCRD PARRIS ISLAND SC  
2/1/2006  
MCRD PARRIS ISLAND

**Response to EPA Comments**  
**Draft Record of Decision (ROD) for Site 12/SWMU 10 – Jericho Island Disposal Area, Marine Corps**  
**Recruit Depot, Parris Island, South Carolina (OU5)**

**General Comments:**

1. **Comment: General.** The Declaration does not state that after the remedy has been implemented, the risk at the site is appropriate for unrestricted use. Please so state, if appropriate (see statement to that effect in Section 2.8.4). If, on the other hand, the risks to humans or the environment do not allow for unrestricted use or unlimited exposure, then it appears to be appropriate to select Land Use Controls (LUCs) as part of the remedy. In addition, under that same assumption, a five-year review would be mandated by CERCLA Section 121(c). And therefore, language changes throughout the document would be necessary where statements are made regarding unrestricted use, re-use, and five year review requirements. See the following comment and please clarify.

**Response:** The following change will be made in section 2.8.2. The change will replace the last paragraph in that section:

As part of the causeway excavation, soil and waste that comprises the causeway and 1 foot of the causeway's underlying sediment would be excavated and disposed at an approved waste disposal facility. Approximately 800 cubic yards of soil, sediment, and waste would be removed.

After the completion of the Site 12 Proposed Plan, the MCRD Parris Island Partnering Team determined that because the existing groundwater wells would be abandoned and backfilled, and because access to Jericho Island would be prevented by removal of the causeway, that it would not be practicable to verify that the very low level shallow groundwater contamination previously observed was permanently abated during the remediation. Therefore, Modified Alternative 4 was further modified to include a LUC in the form of a notice of the groundwater quality being placed into the Base Master Plan, or Base Order, or similar vehicle (to be determined in the LUC RD). This notice was agreed to be sufficient versus a deed restriction in consideration of Jericho Island's restricted access and the shallow groundwater high salinity (<10,000 ug/l).

All other activities described as part of Alternative 4 would be performed as part of Modified Alternative 4.

**The following change will be made in Section 2.8.4. The first paragraph under subheading 'Overall Protection of Human Health and the Environment' will be replaced with the following:**

Modified Alternative 4 would provide the most overall protection compared to the other alternatives. Under Alternative 4 and Modified Alternative 4 waste and contaminated soil and sediment would be removed from all identified areas of concern and disposed at an appropriate off-site facility. Modified Alternative 4 and Alternative 4 do not allow for unrestricted use of the site because it was not verified that these resulted in permanent abatement of contaminants remaining on-site in shallow groundwater above levels that allow for unrestricted use and unrestricted exposure. Modified Alternative 4 would be more protective than Alternative 4 because an additional 800 cubic yards of waste, soil, and sediment would be removed.

**The next-to-last paragraph in Section 2.11 will be replaced with the following:**

This action does not satisfy the statutory preference for remedies that employ treatment that reduces toxicity, mobility, or volume as a principal element because treatment of wastes found at the site was deemed to be impractical. Instead, it was determined that excavation and off-site disposal was more appropriate and adequately protective. Because it was not verified that this remedy resulted in

permanent abatement of contaminants remaining on-site in shallow groundwater above levels that allow for unlimited use and unrestricted exposure, a 5-year review will be required for this remedial action.

- 2. Comment: General.** There appears to be little discussion of whether there is a need to address the risk posed by exposure to groundwater, though Section 2.6 discusses unacceptable risks from such exposure. Section 1.4 states that existing monitoring wells will be properly abandoned. Section 2.4 and Section 2.7.1 states that groundwater will be "indirectly" addressed through actions taken to address waste, soil, and sediment, but includes limited discussion of how this will be accomplished. Taking even this indirect action underscores the question of whether exposure to groundwater at the site poses an unacceptable risk to human health and the environment; whether a remedial action to address these risks is necessary, including LUCs; and whether it is appropriate to abandon all existing monitoring wells, as stated in Section 1.4. Please clarify. Also see Comment 13, especially the NCP references to use for your explanation.

**Response:** All existing monitoring wells have already been abandoned. The response to Comment 1 addresses the remainder of the Comment 2 issues.

#### **Specific Comments:**

- 3. Comment: Section 1.1.** This comment also applies to Section 2.1. The Superfund site identification number is only four digits (i.e. 04NY). Please delete all remaining digits or explain their purpose.

**Response:** The Superfund ID number in both sections has been shortened to 04NY.

- 4. Comment: Section 1.2.** This section should state that the Navy and EPA select the remedy, with concurrence by SC.

**Response:** A new second sentence has been added to the first paragraph: The Navy and EPA select the remedy, with concurrence by SCDHEC.

- 5. Comment: Section 1.2.** Although this section is written in accordance with the EPA guidance "*A Guide to Preparing Superfund Proposed Plans, Records of Decision, and Other Remedy Selection Decision Documents*", it is not stated that the Resource and Conservation Recovery Act (RCRA), as amended was also used to determine the selected remedy. Since the Marine Corps Recruit Depot (MCRD) Parris Island installation and restoration (IR) activities are conducted under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) (as reported) and RCRA programs, this fact should be reflected in the text in this section.

**Response:** The second sentence in this paragraph was revised: The selected remedy was chosen in accordance with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) as amended by the Superfund Amendments and Reauthorization Act (SARA), the Resource and Conservation Recovery Act (RCRA), as amended, and, to the extent practicable, the National Oil and Hazardous Substance Pollution Contingency Plan (NCP).

- 6. Comment: Section 1.3.** The fourth paragraph states "Under other human health exposure scenarios, ILCRs and HIs were within or less than acceptable ranges". The sentence phrase "less than acceptable ranges" may be interpreted as being not acceptable, when in fact, under other human health scenarios, the ILCR and HI levels are acceptable. Please re-phrase the sentence.

**Response:** 'or less than' has been replaced with 'or better than'.

7. **Comment:** Section 1.4. Please note: These comments also apply to Section 2.10, even though those paragraphs are not bulleted.

First bullet - Since two polyaromatic hydrocarbon (PAH) contaminated soil and one inorganic-contaminated sediment areas are discussed in this section, a figure depicting these areas should be included in this section. Figure 1-2 does not depict these areas, however, Figure 2-4 does.

Second bullet – After “achieved” change the language to read, “the Clean-up Goals (CGs) which are set at the Remedial Goal Option (RGO) levels identified in Tables 2-11 and 2-12.” Then fix the rest to be the next sentence or delete it.

The fourth bullet in this section states “Prior to loading and transport, excavated sediment and wet surface debris will be dewatered”. Please provide a brief discussion of the proposed dewatering activities in this section of the ROD.

In the fifth bullet, between the 3<sup>rd</sup> and 4<sup>th</sup> sentences, add the following, “The causeway area will be reestablished as a salt marsh.”, as was stated in the Proposed Plan.

Begin the next sentence in the fifth bullet with “After approval from EPA and DHEC,”

The last sentence in the fifth bullet of this section, states “Also, if verification sampling indicates that residual sediment contamination remains, additional excavation and/or covering with soils may be considered to provide a barrier to reduce contact with contaminated sediment”. Covering with soils would only be allowed if the RGOs have been met, but MCRD desires to further reduce contact. It should be noted that the action of covering any residual sediment contamination with a soil cover to reduce contact with contaminated sediment which has not reached the RGOs is essentially restricting the exposure rather than achieving unrestricted use. This in effect limits the allowable protective land use. Land Use Controls (LUCs) would be a required component to the remedy if the land use is limited and exposure restricted. The ROD should be revised as appropriate to address this issue. We recommend taking out the words “and/or covering with soils”.

(Reminder: Be sure to make these changes to Section 2.10 as well.)

**Response:** First bullet: The following new third sentence was added: See Figure 2-4 for these sample locations.

Second bullet: EPA's suggested text was inserted. The remaining sentence fragment was deleted.

Fourth bullet: EPA requests a discussion of the dewatering activities. This information is included in the remedial design. No changes are being made to the ROD.

Fifth bullet: The insertion about the causeway requested by EPA has been made in both locations. The remaining fifth-bullet sentences were deleted because the construction is already complete and the contingencies described did not manifest, obviating EPA's suggested further revisions.

8. **Comment:** Section 1.5: Add the word “effectively” to the first and second bullets, before “eliminated”. Do the same in Section 2.4, par's 4 and 5; Section 2.8.4 ARARs par 3; Section 2.10, par 1; Section 2.11, bullets 1 and 2; and anywhere else appropriate.

**Response:** 'effectively' was inserted in the locations described in the comment.

9. **Comment:** Section 1.6.

It appears that the table reference provided in the first bullet is incorrect. The correct table reference is likely "(Tables 2-1 through 2-7)". Please revise as necessary.

It appears the table references provided in the second bullet are incorrect. The correct table references are likely (Tables 2-8) and (Table 2-10). Please revise as necessary.

In the third bullet please add "(Table 2-11 and 2-12)" after COCs and delete "(Table 2-9)" at the end.

In the fourth bullet, after "Section 2.7" add "and Table 2-9".

In the seventh bullet, after "Section 2.5.3" add ", Section 2.8.4,"...

In the eighth bullet, change "C" to "B".

In the ninth bullet after "Sections" add "2.10 and".

**Response:** The references have been corrected, as identified by EPA.

10. **Comment:** Section 1.7. The current Division Director is in an acting capacity for a limited duration. Before this ROD is submitted in its final form, please check back with us to confirm the signature line. The signature line as of today should read:

Beverly H. Banister  
Acting Division Director  
Waste Management Division  
U.S. EPA Region 4

**Response:** The signature line will be titled with the current person prior to final submittal.

11. **Comment:** Section 2.1. This section should state that the Navy and EPA select the remedy, with concurrence by SC.

**Response:** The sentence was inserted as the third sentence in the third paragraph.

12. **Comment:** Section 2.2. The text indicates that Figure 1-1 demonstrates how the runway is aligned. It does not appear to be demonstrated on Figure 1-1. Please clarify by labeling the runway on the Figure.

**Response:** The reference 'as can be seen in Figure 1-1' has been deleted.

13. **Comment:** Section 2.4. This section indicates that the scope of the response action includes groundwater but does not do an adequate job of defining why no remedial action is necessary for the groundwater. This section states that it is unlikely that humans will drink Site 12 groundwater due to its 'high salt content.' Though this information is important to the cleanup decision, it does not go far enough in justifying, per the NCP, why no action is necessary.

Here is a road map using the Preamble to the NCP:

- Identify the groundwater as a Class I, II or III. Class III groundwaters are not 'considered to be potential sources of drinking water and are of limited beneficial use. These are ground

waters which are highly saline...’ Class III groundwaters are also described as waters that are unsuitable for human consumption due to high salinity or widespread contamination and [do] not have the potential to affect drinkable ground water...@ 53 Fed Reg 51433.

- If found to be a Class III groundwater, then drinking water standards are neither applicable nor relevant and appropriate. NCP Preamble, 53 Fed Reg 51434. Bear in mind, that doesn't mean that you don't take some kind of remedial action; it just means that ARARs don't apply when you do take an action.
- Remedial alternatives should focus on whether there is any beneficial use or on preventing adverse spread of the contamination. In addition, environmental receptors and systems may well determine the necessity and extent of groundwater remediation. 53 Fed Reg 51434.

Please use these excerpts from the NCP to provide an analysis for why no remedial action is necessary for the groundwater at Site 12. Section 2.5.2.1 contains information that may be helpful to your explanation.

**Response:** The following has been added as a final sentence in the fourth paragraph: However, because it will not be verified that the remedial action permanently abated the minor contamination in shallow groundwater, shallow groundwater is being addressed by LUC.

14. **Comment:** Section 2.6, Par's 6 and 7. Please clarify which “such” “human health criteria” were exceeded (e.g. screening, risk range, etc.)

**Response:** The text has been revised to replace ‘such’ with ‘ecological screening’ in both cases.

15. **Comment:** Section 2.7.1. The seventh paragraph states “Under other exposure scenarios, cancer and non-cancer risks were within or less than acceptable ranges” is misleading as written. The phrase “less than acceptable ranges” may be interpreted as being less than acceptable, or not acceptable, when in fact they are acceptable. Please re-phrase the sentence.

**Response:** ‘or less than’ has been replaced with ‘or better than’.

16. **Comment:** Section 2.8.2. Please include an underline heading for Modified Alternative 4, as has been done for the other alternatives. Especially since this is the Selected Remedy, it should be easy to locate in the document.

**Response:** The first sentence in Section 2.8.2 states that the (following) alternatives were developed and evaluated in the FS/CMS. Modified Alternative 4 was not developed until after the FS/CMS and wasn't evaluated there. The separate underline heading could be misleading to readers. The current text, in the current format, accurately explains how Modified Alternative 4 was developed after the FS. We agree that the Selected Remedy should be easy to locate in the document. See Section 2.10 – Selected Remedy. No changes to the ROD are necessary based on this comment.

17. **Comment:** Section 2.8.2. Alternatives 2A, 2B and 3 all utilize land use controls and long-term monitoring of the groundwater. Please clarify why land use controls and long-term monitoring of the groundwater are required by neither Alternative 4 and Modified Alternative 4.

**Response:** Alternatives 2A, 2B, and 3 all include waste consolidation and capping of waste on site; effectively a landfill. Per SCDHEC policy, all landfills can be anticipated to require long term monitoring for groundwater. No changes to the document are required based on this comment.

18. **Comment:** Section 2.8.3. This section states, appropriately, that all remedial actions must meet ARARs

unless waived. This ROD does not explain that ARARs for groundwater may not apply, though the risk from exposure to groundwater has exceeded the risk range of  $10^{-4}$  to  $10^{-6}$ . Please clarify based on your responses to Comment 13 above.

**Response:** As per response to comment 13, groundwater will be addressed by LUC. LUC will be developed in the LUC RD, consistent with all applicable ARARs. Table 2-13 already identifies ARARs along with status (applicable, not applicable, TBC, etc). No changes to the document are required based on this comment.

19. **Comment:** Section 2.8.4. Please see previous comment regarding ARARs and clarify whether ARARs have been identified for groundwater and how the alternatives propose to address them, or whether it has been determined, per CERCLA 121(d) that ARARs do not apply or may not be appropriate, even if applicable or relevant. (See comments 13 and 18.)

**Response:** ARARs have been identified for groundwater as shown in Table 2-13. Table 2-13 already identifies ARARs along with status (applicable, not applicable, TBC, etc.). No changes to the document are required based on this comment.

20. **Comment:** Section 2.8.4. This section states that both Alternative 4 and Modified Alternative 4 allow for unrestricted use of the site. Please clarify whether unrestricted use is intended to mean that the groundwater is safe for consumption by residents or other users.

**Response:** The third sentence in the first paragraph under the sub heading Overall Protection of Human Health and the Environment has been modified as follows: Modified Alternative 4 and Alternative 4 do not allow for unrestricted use of the site because it was not verified that these resulted in permanent abatement of contaminants remaining on-site in shallow groundwater above levels that allow for unrestricted use and unrestricted exposure.

21. **Comment:** Section 2.8.4. Please clarify how both Alternative 4 and Modified Alternative 4 comply with ARARs. (See comment 13, 18 and 19).

**Response:** As per response to comment 13 and 18, groundwater will be addressed by LUC. LUC will be developed in the LUC RD, consistent with all applicable ARARs. Table 2-13 already identifies ARARs along with status (applicable, not applicable, TBC, etc).

The final two sentences under the sub heading of Compliance with ARARs/Waste Management Standards will be revised:

Alternative 4 and Modified Alternative 4 would also attain all action-specific ARARs and comply with waste management standards because the remedial design must be developed to comply with ARARs and must be approved by EPA and SCDHEC .

Alternative 1 would not meet location-specific ARARs. Alternatives 2a, 2b, 3, and Modified Alternative 4 would attain all location-specific ARARs because all applicable workplan approvals and permits will be acquired.

22. **Comment:** Section 2.10. Please address the monitoring and establishment of success criteria for restored areas of the 1.6 acres of wetland impacted by the cleanup.

**Response:** The following sentence was added to the end of the last paragraph (restoration) in this section: The causeway area was reestablished as a salt marsh. Monitoring and establishment of success criteria were developed and approved as part of the remedial action workplan.

23. **Comment:** Section 2.10. Please clarify what is meant by Alternatives for the salt marsh restoration may be considered that would be enacted based on inadequate vegetative establishment or reestablishment of soil conditions. Clarify that any such alternatives must be approved by EPA and DHEC.

**Response:** The statements identified by EPA have been deleted because the construction is already complete and the contingencies described did not manifest, obviating EPA's suggested further revisions

24. **Comment:** Section 2.10 and 2.11. Please revisit earlier comments regarding groundwater, unrestricted use and ARARs, and address, as necessary, in these sections.

**Response:** The next to last paragraph in Section 2.11 has been revised:

This action does not satisfy the statutory preference for remedies that employ treatment that reduces toxicity, mobility, or volume as a principal element because treatment of wastes found at the site was deemed to be impractical. Instead, it was determined that excavation and off-site disposal was more appropriate and adequately protective. Because it was not verified that this remedy resulted in permanent abatement of contaminants remaining on-site in shallow groundwater above levels that allow for unlimited use and unrestricted exposure, a 5-year review will be required for this remedial action.

25. **Comment:** The ROD should document that the remedy has already been implemented and that while there was a delay in finalizing this document, the decision was made to proceed with a remedial action workplan and implementation of the remedial action due to funding issues and timing issues related to the planting season for revegetation efforts. This text could be included in the Declaration, Section 2.2 and Section 2.10.

**Response:** The following text has been included in all three locations:

The remedy has already been implemented prior to finalization of this ROD. Based on EPA and SCDHEC review of a draft ROD, no adverse public comments received during the Proposed Plan public comment period, funding availability, and timing issues related to the planting season for revegetation efforts, construction was allowed to proceed while there were delays in finalizing this document.

26. **Comment:** Table 2-11. Indicate the specific EPA guidance referenced in the table footnote No. 8 which states that "RGO is PRG + Background per U.S EPA Guidance".

**Response:** Consistent with the NCP, MCRD's human health risk assessment considers incremental lifetime cancer risk. The PRG is based on human health risk assessment, independent of background concentration. Therefore the calculated RGO is correctly the PRG + background concentration, per the NCP (and therefore, per US EPA guidance).

27. **Comment:** Section 2.12. This section may need updating based on responses to earlier comments, if such responses indicate anything significantly different from the Proposed Plan.

**Response:** EPA's guidance identifies a significant change as one that impacts scope, performance or cost. Since there was little or no impact to these parameters by addition of LUC to prevent use of shallow groundwater, EPA defines the change as a Minor Change, and no commentary is required in the Documentation of Significant Changes Section.

28. **Comment:** Responsiveness Summary: The final bulleted response may or may not need to change

depending on responses to earlier comments.

**Response:** No changes to the Responsiveness Summary are required by responses to earlier comments.