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January 5, 2011

U.S. Environmental Protection Agency - Region II
290 Broadway – 22nd Floor
New York, New York 10007-1866

Attn: Mr. Adolph Everett, P.E.
Chief, RCRA Programs Branch

Re: Contract N69450-09-C-0072, Mod 1
Corrective Action for SWMUs 27, 28, 29 and Pico Del Este
Naval Activity Puerto Rico, Ceiba, Puerto Rico
U.S. Naval Activity Puerto Rico (NAPR)
EPA I.D. No. PR2170027203
Final Design Package for SWMU 2

Dear Mr. Everett:

Right Way Environmental Contractors, Inc. (RWEC), on behalf of the Navy, is pleased to provide you with one hard copy and one electronic copy provided on CD of the Final Design Package for Interim Corrective Measures for SWMU 2, including the Final Basis of Design Report, Final Design Drawings, and the Final Technical Specifications for Interim Corrective Measures for SWMU 2.

These documents are being submitted in accordance with EPA comments dated October 14, 2010. The Navy responses to these comments are attached for your review.

If you have questions regarding this submittal, please contact Mr. Mark Davidson at (843) 743-2124. Additional distribution has been made as indicated below.

Sincerely,

Right Way Environmental Contractors, Inc.



Pedro R. Tejada
Vice President

Attachments

cc: Ms. Debbie R. Sanders, BRAC PMO SE (letter only)
Mr. David Criswell, BRAC PMO SE (letter only)
Mr. Mark E. Davidson, BRAC PMO SE (1 hard copy and 1 CD)
Mr. Pedro Ruiz, NAPR (1 CD)
Mr. Mark E. Kimes, P.E., Michael Baker Jr., Inc. (1 hard copy and 1 CD)
Mr. Tim Gordon, US EPA Region II (1 hard copy and 1 CD)
Mr. Carl Soderberg, US EPA Caribbean Office (1 hard copy and 1 CD)
Ms. Gloria Toro, PR EQB (1 hard copy and 1 CD)
Ms. Bonnie Capito, NAVFAC Atlantic – Code EV42 (1 hard copy for Administrative Record)
Ms. Wilmarie Rivera, PR EQB (1 CD)
Mr. Felix Lopez, US F&WS (1 CD)
Ms. Brenda Smith, TechLaw, Inc. (1 CD)

**NAVY RESPONSE TO EPA COMMENTS DATED OCTOBER 14, 2010
ON THE DRAFT DESIGN PACKAGE FOR INTERIM CORRECTIVE
MEASURES FOR SWMU 2 DATED AUGUST 13, 2010**

EPA COMMENTS

(EPA comments are provided in italics, while the Navy responses are provided in regular print.)

GENERAL COMMENTS

1. *It is unclear from the Draft Basis whether the corrective action objectives (CAOs) for surface soil at SWMU 2 were approved by the regulatory stakeholders. According to Section 2.4 (Remediation Levels) of the Draft Basis, the CAOs were developed in the Corrective Action Objectives Development for Terrestrial Avian Omnivores and Preliminary Delineation Investigation, Naval Activity Puerto Rico, dated August 13, 2010 (CAO Development Document). However, it is unclear if the CAO Development Document and CAOs presented in the CAO Development Document were approved by the regulatory stakeholders. Revise the Draft Basis to clarify whether the CAO values, presented in the CAO Development Document, were approved by the regulatory stakeholders. In addition, revise the Draft Basis to clarify how these CAOs are protective to risk receptors.*

Navy Response to EPA General Comment 1: A paragraph was added to Section 2.4 to clarify the CAOs within the BOD have not been approved until the CAO Development Document is approved. A sentence was added to Section 2.5 to clarify the protectiveness to risk receptors.

2. *Details regarding the delineation of the wetlands in the vicinity of the proposed excavations have not been provided in the Draft Basis. Delineation of the wetlands is only briefly referenced in Section 3.2 (Description of the Proposed Removal Action). Based on Figure 2-3 (Proposed Excavation and Delineation Soil Sampling Locations), a number of proposed excavation areas are located within the wetland boundary. As such, it is unclear how the wetland areas will not be disturbed during construction activities, especially if wetlands are identified within the proposed limits of excavation. Revise the Draft Basis to provide details regarding the delineation of the wetlands in the vicinity of the proposed excavations. In addition, revise the Draft Basis to provide specifications for how disturbing the wetlands during construction activities will be prevented. Further clarify if wetland mitigation activities are proposed for those areas impacted by the proposed removal actions.*

Navy Response to EPA General Comment 2: The BOD is an internal Navy document and has all the appropriate level of detail on wetland delineation. Details of wetland delineation are discussed in greater detail in SWMU 2 ICM Work Plan, Section 4.3. BOD, Section 2.3 states the wetlands will be delineated in the field prior to excavation activities to determine precise location and quality of wetlands. The wetland boundary presented in Figure 2-3 has not been verified by wetland delineation as indicated in BOD, Section 3.3. In addition, BOD, Section 3.2 states no excavation or interim activities will be allowed within the defined wetland boundaries.

3. *It is unclear why specifications for addressing groundwater encountered in the excavation will not be developed until after groundwater is encountered. Based on Section 4.4 (Surface Water Collection and Control), "Should groundwater be encountered in the excavation, work will be stopped and specifications will be developed for dewatering, containerization, sampling, analysis, and disposal of the groundwater." The 5th Bullet on Page 3-2 of Section 3.2 (Description of the Proposed Actions) states that, "If groundwater is encountered during excavation, the excavation depth will be adjusted*

to restrict proceeding below [the] groundwater table. This text tends to contradict Section 4.4. As such, it is unclear if specifications for addressing groundwater encountered in the excavation will be developed after groundwater is encountered or if the excavation depth will simply be adjusted to restrict proceeding below the groundwater table. Revise the Draft Basis to include specifications for addressing groundwater encountered in excavations or clarify why development of specifications following the encounter of groundwater is appropriate. Ensure the text is revised to consistently present the approach for encountering groundwater.

Navy Response: The Navy does not intend to excavate saturated soils or excavate below the groundwater table as indicated in Section 3.2 of the BOD. Section 4.4 was revised to restrict excavation depth below the groundwater table.

4. Based on Section 4.1 (Mobilization and Preparatory Work), the Erosion and Sedimentation Control Plan, Site Specific Health and Safety Plan, Sampling and Analysis Plan, Complete Remedial Design Plans, Organization Chart, Project Schedule, and Submittal Register will be included in the Draft Interim Corrective Measures Work Plan for SWMU 2, Naval Activity Puerto Rico, Cieba, Puerto Rico (Draft ICM WP). The Draft Basis should represent a stand alone document. As such, these submittals should be provided as appendices to the document. Further, based on a cursory review of the August 13, 2010 Draft ICM WP, it does not appear that the information provided for these submittals is sufficiently detailed. For example, the Erosion and Sedimentation Control Plan does not provide any information on the methods of erosion and sedimentation control that will be utilized. Revise the Draft Basis to represent a stand alone document and include the Erosion and Sedimentation Control Plan, Site Specific Health and Safety Plan, Sampling and Analysis Plan, Complete Remedial Design Plans, Organization Chart, Project Schedule, and Submittal Register. Alternatively, the Draft Basis and Draft ICM WP can be submitted simultaneously under a single cover letter to ensure consistency.

Navy Response to EPA General Comment 4: The BOD is not the appropriate document to present any detailed plans. The BOD is an internal Navy document intended to give a general approach to the design. Both the BOD and ICM Work Plans are standalone documents. The Navy developed the Draft BOD solely for the purpose of directing the Contractor in development of the Draft ICM Work Plan. The BOD has the appropriate level of detail necessary to develop required submittal plans.

The BOD is not intended to be a stand alone design or work plan. The ICM WP is the appropriate document to present the work plan in sufficient detail; as such, it is designed and intended to stand alone on its own merit. The ICM WP has identified erosion and sedimentation control that will be employed in accordance with Technical Specification 01 57 19.00 20 Section 3.2, Technical Specification 31 23 00.00 20 Section 3.1.1.1, Technical Specification Section 2.4 and Design Drawing D-1, Detail.

SPECIFIC COMMENTS

1. **Section 1.1, Purpose of the Basis of Design, Page 1-1:** It is unclear why the text indicates “Baker assumes no responsibility for the use of this report for any purpose other than these intended uses.” Please provide more clarifying text that indicates why the text includes this limiting statement.

Navy Response to EPA Specific Comment 1: Sentence deleted.

2. **Section 2.2, Summary of Previous Environmental Investigations, Page 2-3:** The text states that, “Correlation was found to be high between the disposal features noted by the photo-interpretation,

and disposal indications found during the land-clearing activities. It should be noted that the geophysical investigation only covered the horizontal extent of the disposal area.” It is unclear how the vertical extent of contamination will be determined. Please revise the Draft Basis to indicate how the vertical extent of contamination will be verified, or why it is unnecessary.

Navy Response to EPA Specific Comment 2: Section 2.2 was revised to include; “The vertical extent of the disposal areas shall be visually verified during removal of the debris piles and subsequent delineation soil sampling”.

- 3. Section 3.4, General Operations and Maintenance Requirements, Page 3-4: It is unclear what erosion control structures will be utilized. Based on Section 3.4, erosion control structures will be inspected and maintained until vegetation is sufficiently established whereupon erosion control structures will be removed. While a Erosion and Sedimentation Control Plan will be developed, revise the Draft Basis to discuss the erosion control structures that will be utilized and specify the locations where they will be utilized, as they will also serve as protection for the wetland areas so as to prevent impact from the proposed activities.*

Navy Response to EPA Specific Comment 3: The ICM WP is the appropriate document to present specific details on erosion and sediment control; as such, the ICM WP provides details on what structures will be used in addition to where they should be located.

- 4. Section 4.2.2, Soil Sampling, Page 4-2: It is unclear if two or three confirmation samples will be collected from the off-site borrow material to be used as backfill. In addition, it is unclear if two or three samples will be representative and sufficiently certify that the soil is clean. Section 4.2.2 states that one sample will be collected for every 500 cubic yards of potentially clean/borrow material. Based on calculations in Appendix B (Supporting Calculations), 1,227 cubic yards will be excavated from SWMU 2. As such, it is unclear if two or three confirmation samples will be collected. Revise the documents to clarify whether two or three confirmation samples will be collected. In addition, revise the document to discuss how these confirmation samples will be representative and sufficiently certify that the soil is clean.*

Navy Response to EPA Specific Comment 4: Section 4.2.2 sampling frequency 500 cubic yards was revised to 5,000 cubic yards. A sampling frequency of one per 5,000 cubic yards per borrow source for off-site material is sufficient to characterize clean backfill from a single borrow source.

- 5. Section 4.2.4, Testing and Analysis, Page 4-3: It is unclear why the analytical methods have not been provided in Section 4.2.4. For example, the text states that fluids collected during excavation and decontamination will be tested for constituent of concern (COC) metals, full Toxicity Characteristic Leachate Procedure (TCLP) and Ignitability, Reactivity, and Corrosivity (IRC). However, the specific analytical methods are not provided. Revise Section 4.2.4 to provide specific analytical methods for all sampling.*

Navy Response to EPA Specific Comment 5: The ICM WP is the appropriate document to present specific details on analytical methods; as such, the ICM WP identifies the specific analytical methods to be used in Appendix C, Table 3-2.

MINOR COMMENT

1. *Section 3.2, Description of the Proposed Removal Actions, Page 3-1: The third bullet in Section 3.2 does not make sense. The text states, “If CAOs are exceeded limits. . .” Revise the third bullet, as necessary.*

Navy Response to EPA Minor Comment 1: In Section 3.2, bullet 3, the text was altered to read “If a delineation sample exceeds the CAOs than an additional sample will be collected ...”

PREQB COMMENTS

(PREQB comments are provided in italics, while the Navy responses are provided in regular print.)

1. *Page 2-4, Section 2.4, Paragraph 1: Please provide the CAO for antimony in addition to the other metals listed and indicate that these CAOs are applicable to subsurface in addition to surface soils.*

Navy Response to PREQB Comment 1: CAO value for antimony (114,938 mg/kg) and “subsurface soils” were added to Section 2.4.

2. *Page 2-4, Section 2.5, Paragraph 1: Please indicate that antimony is also a potential ecological risk driver (in addition to the copper, lead, mercury and zinc which are already listed).*

Navy Response to PREQB Comment 2: Antimony was added to list of potential ecological risk drivers in Section 2.5.

3. *Page 2-5, Section 2.5:*
 - a. *The report states that the selected interim corrective measure involving soil removal will eliminate direct exposure pathways for terrestrial plants and invertebrates. Although this is correct, the CAOs have not been developed based on these receptors. Therefore, concentrations of COCs within soil outside of the proposed soil removal areas may still result in impacts to both terrestrial plants and invertebrates. Please amend the text to indicate that the elimination of direct exposure pathways for terrestrial plants and invertebrates will be achieved only in those areas where soil removal followed by placement of clean soil is being conducted.*

Navy Response to PREQB Comment 3(a): Section 2.5 was revised to include; “Direct exposure pathways will be eliminated only in those areas where soil removal followed by placement of clean soil has been conducted”.

- b. *The report states that the required depth of soil excavation (1 foot or 2 foot bgs) is based on potential food web exposure for avian, amphibians, reptiles, aquatic invertebrates, and mammalian herbivores. Please delete the reference to aquatic invertebrates as these receptors would not be associated with surface or subsurface soil.*

Navy Response to PREQB Comment 3(b): Section 2.5, paragraph 3 reference to aquatic invertebrates was deleted.

- c. *Please clarify in the second paragraph on this page that the proposed extent of the soil removal activities as shown on the supporting figures represents the initial boundaries*

which are subject to change pending the results of the delineation sampling. As currently worded, this may not be clear to all readers.

Navy Response to PREQB Comment 3(c): Section 2.5, paragraph 2 was revised to include; “The extent of the soil removal activities as shown on the supporting figures represents the initial boundaries which are subject to change pending the results of the delineation sampling”.

4. *Page 3-1, Section 3.2, Bullet 2:* Please indicate that subsurface soil samples will be collected in addition to the surface soil samples as part of the delineation efforts.

Navy Response to PREQB Comment 4: Section 3.2, bullet 2 was revised to include subsurface soil samples.

5. *Page 3-1, Section 3.2, Bullet 8:* The information presented in the Draft ICM WP for SWMU 2 indicates that excavated soils maybe temporarily stored in covered stockpiles. Please expand this bullet (as well as the following bullet) to reflect this potential scenario.

Navy Response to PREQB Comment 5: Section 3.2, bullets 8 and 9 was revised to provide for either covered stockpile or roll-off container for storage of excavated soil. The BOD and ICM Work Plan have been revised to allow usage of either stockpiles or containers for excavated soils.

6. *Page 3-2, Section 3.2, Bullet 8:* Please alter this bullet to reflect that subsurface delineation samples will also be collected and that the analyte list will include antimony in addition to the other metals listed.

Navy Response to PREQB Comment 6: Section 3.2, bullet 8 was revised to include subsurface delineation samples and antimony was added to the analyte list.

7. *Page 3-2, Section 3.2, Bullet 10:* Please add antimony to the analyte list specified in this bullet item.

Navy Response to PREQB Comment 7: Section 3.2, bullet 10 was revised to include the addition of antimony to the analyte list.

8. *Page 3-3, Section 3.3, Paragraph 2:* Please confirm if excavation activities will be allowed in the wetland area with prior notification to the NTR, as indicated in the Draft Interim Corrective Measures Work Plan. It is understood that the jurisdictional wetland boundaries will be defined prior to commencing excavation work, however, if excavation of contaminated soils will not be allowed in the wetland areas, this would appear, based on the current contract drawings, to preclude the excavation of a significant area of impacted soil.

Navy Response to PREQB Comment 8: No excavation activities will be allowed in the delineated wetland area. Soil in the wetlands will be addressed under separate work plan and not addressed under SWMU 2 ICM Work Plan.

9. *Page 4-3, Section 4.2.4:* Please add antimony to the list of COCs, add a bullet with respect to delineation sampling and ensure that there is consistency between what is stated in this section regarding the analyses to which each type of sample will be subjected and that which is stated in the SAP (taking into consideration any changes that may be made to the analytical suite based on comments presented for other documents).

Navy Response to PREQB Comment 9: Section 4.2.44 was revised to include antimony to the COC list. A new bullet (6) was added to Section 4.2.4, which discusses delineation soil sampling. The ICM Work Plan, Appendix C Sampling and Analysis Plan contains the required analysis and testing methods for delineation samples.

10. *Page 4-5, Section 4.5, Paragraph 2:* Please clarify the discrepancy between the anticipated amount of soil expected to be removed from SWMU 2 as stated in this section (1,227 cubic yards) versus that which is stated in Section 3.

Navy Response to PREQB Comment 10: The correct excavated soil volume is 1,264 cubic yards. Section 4.5 was revised to reflect the correct volume.

Minor Points:

1. *Page 3-1, Section 3.2, Bullet 1:* Please use the word “within” instead of “with” in the sentence that comprises this bullet item.

Navy Response PREQB Minor Point Comment 1: Section 3.2, bullet 1 was revised.

2. *Page 3-1, Section 3.2, Bullet 3:* Please remove the word “limits” from the sentence that comprises this bullet.

Navy Response PREQB Minor Point Comment 2: Section 3.2, bullet 3 was revised.

3. *Page 3-3, Section 3.3, Bullet 2:* Please change the word “know” to “known” in the second sentence.

Navy Response PREQB Minor Point Comment 3: Section 3.3, bullet 2 was revised.