**Michael Baker Jr., Inc.**
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August 13, 2010

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 N62470-10-D-3000
IQC for A/E Services for Multi-Media
Environmental Compliance Engineering Support
Delivery Order (DO) JM01
U.S. Naval Activity Puerto Rico (NAPR)
EPA I.D. No. PR2170027203
Draft Interim Corrective Measures Work Plan for SWMU 2

Dear Mr. Everett:

Michael Baker Jr., Inc. (Baker), on behalf of the Navy, is pleased to provide you with one hard copy and one electronic copy provided on CD of the Draft Interim Corrective Measures Work Plan for SWMU 2. Additional distribution has been made as indicated below.

This document is being submitted in accordance with EPA, PREQB and F&WS comments on the Draft Phase I Interim Corrective Measures (ICM) Work Plan for SWMUs 1 and 2, dated January 8, 2010 and the Navy letter dated July 2, 2010 to the EPA. 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.

Sincerely,
**MICHAEL BAKER JR., INC.**

Mark E. Kimes, P.E.
Activity Coordinator

MEK/lp
Attachments

cc: Ms. Debra Evans-Ripley, 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. 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. Wilmarie Rivera, PR EQB (1 hard copy and 1 CD)
Mr. Felix Lopez, US F&WS (1CD)
Mr. Jonathan Flewelling, TechLaw, Inc. (1 CD)

**NAVY RESPONSE TO EPA, PREQB AND F&WS COMMENTS**

**RESPONSE TO EPA JANUARY 8, 2010 COMMENTS ON THE TECHNICAL REVIEW OF THE DRAFT PHASE I INTERIM CORRECTIVE MEASURES WORK PLAN FOR SWMUs 1 AND 2 (DATED NOVEMBER 19, 2009)**

**EPA COMMENTS DATED JANUARY 8, 2010**

*(EPA, PREQB and F&WS comments are provided in italic while the Navy responses are provided in regular print.)*

**General Response Comments:**

A. During recent field activities conducted at SWMU 1, munitions and explosives of concern (MEC) and unexploded ordnance (UXO) were discovered on the ground surface at the site. In accordance with Department of Navy (DoN) letters to the United States Environmental Protection Agency (USEPA) dated April 5, 2010 and July 2, 2010, the Navy is addressing comments received on the Draft ICM Work Plan for Solid Waste Management Units (SWMUs) 1 and 2, dated November 19, 2009, and will submit separate ICM Work Plans for SWMUs 1 and 2.
B. The following document contains the Navy's response to comments received by the Navy on the Draft Phase I Interim Corrective Measures (ICM) Work Plan for SWMUs 1 and 2, dated November 19, 2009. The intent of this response to comment document is to describe how the Navy will address each comment in the future SWMU 1 and SWMU 2 work plans. The Draft Phase I ICM Work Plan for SWMUs 1 and 2 dated November 19, 2009 will not be finalized; instead, the document will be replaced by draft ICM work plans generated for SWMU 1 and for SWMU 2. The intent of the new work plans will be to provide details regarding soil sampling and removal activities at the SWMUs utilizing updated site information and soil sample analytical results obtained during the December 2009 field sampling event.
C. Debris removal activities will continue at SWMU 1 once an explosives safety submission (ESS) is prepared and approved by the Naval Ordnance Safety and Security Activity (NOSSA). After the ESS is approved, a separate work plan for MEC investigation and removal at SWMU 1 will be prepared by the Navy and forwarded to the USEPA for concurrence.
D. The Navy's contractor (Right Way Environmental Contractors, RWEC) conducted debris removal activities at SWMU 2, maximizing the opportunity to complete field work during the short dry weather work window in January 2010. RWEC removed debris at SWMU 2 in accordance with the Draft ICM Work Plan procedure outlined for SWMU 1.
E. SWMU 1 and 2 clearing and grubbing, SWMU 2 surface debris removal, and SWMU 1 and 2 delineation soil sampling were started and/or completed prior to receipt of the January 8, 2010 USEPA comments. Results of the sampling and debris removal activities will be presented in subsequent reports.
F. The development of corrective action objectives (CAOs) for each SWMU will be

presented in a separate report, "SWMU 1 and 2 Corrective Action Objective Development and Pre-Interim Corrective Measures Delineation Sampling Results" Michael Baker, Jr. Inc., scheduled for release by the Navy in August 2010.

G. Separate Interim Corrective Measures (ICM) Basis of Design and Design Package (Plans, Technical Specifications and Work Plans) will be developed separately for SWMU 1 and SWMU 2 due to the presence of UXO at SWMU 1.

**GENERAL COMMENTS**

1. *It is not clear how the purpose of the Draft ICM WP will be met by the proposed sampling. Based on Section 1.0 (Introduction), the purpose of the Draft ICM WP is to delineate the extent of surface soil contamination by performing soil sampling and analysis at SWMUs 1 and 2 as well as to reduce the risk of environmental contamination by removing surface debris at SWMU 1. However, the substantiation of the previously detected exceedances identified on Figures 1-3 (Surface Soil Delineation Sampling Locations for SWMU 1) or 1-4 (Surface Soil Delineation Sampling Locations for SWMU 2) have not been provided in the Draft ICM WP. As a result, substantiation for the proposed surface soil delineation samples has not been presented. In addition, it is not clear how the extent of the presented surface debris piles was determined as data demonstrating that these areas have been sufficiently characterized and/or delineated were also not presented in the Draft ICM WP. For example, it does not appear that the debris pile southwest of surface soil location 1SS11 on Figure 1-3 has been sufficiently characterized to the east, southeast, south, southwest, west, northwest, or north. Similarly, the surface debris pile located east of surface soil location 1SS13 has not been characterized to the northeast, east, southeast, or south. Similar scenarios exist at other surface debris piles. Revise the Draft ICM WP to clarify how the proposed sampling meets the purpose discussed in Section 1.0. In addition, revise the Draft ICM WP to include characterization and delineation of the areas surrounding the surface debris piles. Also provide the criteria for determining that success has been achieved for removal of the surface debris in the absence of characterization data. In addition, revise the Draft ICM WP to substantiate the determination of the locations of previous exceedences presented on Figures 1-3 and 1-4.*

   **Navy Response to EPA General Comment 1:** The locations selected for the initial delineation sampling were based on results of historic sampling data and proximity to the known debris piles. It was assumed that contaminated soil would be associated with and in close proximity to the debris piles. These sample locations represent an initial approach to delineation of SWMU 1 and SWMU 2 for the contaminants of concern. Additional delineation sampling will be implemented prior to soil remediation activities once the corrective action objectives have been finalized (refer to General Response Comment F). Separate work plans developed for SWMUs 1 and 2 (refer to General Response Comment G) will implement additional pre-excavation sampling to substantially delineate the previously detected exceedences regardless of the location of debris piles.

2. *Technical specifications have not been provided in the Draft ICM WP. As a result, the standard operating procedures (SOPs), drawings, and specifications for project activities*

*(e.g., site preparation, site surveying, surface soil delineation sampling, surface debris removal procedures, dust control, erosion control, and equipment decontamination) have not been provided. Revise the Draft ICM WP to include technical specifications and drawings so that the SOPs can be reviewed to ensure that the proposed activities are designed to be ecologically protective and that they will be implemented in an ecologically protective manner.*

**Navy Response to EPA General Comment 2:** Field activities presented in the Draft ICM Work Plan were completed prior to receipt of this comment (refer to General Response Comment E). The Draft ICM Work Plan activities were implemented in accordance with standard construction practices, while assuring that the site ecology was not detrimentally affected. Future activities at SWMUs 1 and 2 will be implemented using the ICM Design Packages developed for each SWMU (refer to General Response Comments G) which include SOPs, drawings and specifications for proposed field activities. As the proposed sampling and removal activities are located in close proximity to ecologically sensitive areas, the SOPs, drawings, and specifications will clearly identify procedures for identifying and field marking wetland areas, protecting ecologically sensitive areas during construction activities wherever possible, and restoring the affected areas to pre-excavation conditions.

3. *The remediation goals for SWMUs 1 and 2 have not been provided. As such, it is not clear what criteria will be used to determine the extent of surface soil contamination. For example, Section 7.1 (Constructions Completion Report) states that information demonstrating that the approval plans were implemented and that the cleanup criteria have been met will be submitted in the completion report. However, without defined remediation goals and/or criteria, it is not clear how the completion report will be capable of demonstrating that the approval plans were implemented and that cleanup criteria were met. Revise the Draft ICM WP to clarify the criteria that will be utilized to assess the data collected in support of the determination of the extent of surface soil contamination at SWMUs 1 and 2. In addition, clarify the assessment and/or screening procedures that will be utilized to demonstrate that the approval plans were implemented and that the cleanup criteria were met.*

   **Navy Response to EPA General Comment 3:** The corrective action objectives (CAOs) will be provided in separate report, "SWMUs 1 and 2 CAO Development and Pre-ICM Delineation Sampling Results" Baker scheduled to be released by the Navy in August 2010 (refer to General Response Comment F). Interim Corrective Measures Design Packages will be developed separately for SWMU 1 and SWMU 2 based on the CAO criteria provided (refer to General Response Comment G).

4. *It is not clear what action(s) will be taken should the surface soil delineation samples indicate that the extent of contamination exists and/or extends beyond the current sampling configuration. For example, it is not clear if additional surface soil delineation samples will be proposed. Revise the Draft ICM WP to clarify what actions will be taken should the surface soil delineation samples indicate that contamination exists and/or remains beyond the limits of the currently proposed sampling activities.*

**Navy Response to EPA General Comment 4:** All delineation sampling proposed in the November 19, 2009 Draft ICM Work Plan was completed prior to receipt of this comment (refer to General Response Comment E). The analytical data obtained from the sampling endeavor will be incorporated in the future ICM Work Plans developed for SWMUs 1 and 2. Additional delineation sampling is planned prior to soil remediation activities once the corrective action objectives have been finalized (refer to General Response Comment F). Separate work plans developed for SWMUs 1 and 2 (refer to General Response Comment G) will implement additional pre-excavation sampling to substantially delineate the previously detected exceedences.

## SPECIFIC COMMENTS

1. *Section 1.2.2, SWMU 1 – Army Cremator Disposal Site, Pages 1-2 to 1-3: Details regarding the estuarine wetland and open water habitat have not been provided in the Draft ICM WP. As such, it is not clear how these areas will be identified, avoided, and protected during construction activities. Revise the Draft ICM WP to clarify how the estuarine wetland, and open water habitat, will be identified, avoided, and protected during construction activities at SWMU 1.*

**Navy Response to EPA Specific Comment 1:** For SWMU 1, field activities will be performed under separate SWMU 1 ICM Design Package which will include details regarding the estuarine wetland and open water habitat and the procedure for identification, avoidance (wherever possible), protection during construction activities, and restoration after construction activities are completed.

2. ***Section 3.5, Decontamination Procedures, Page 3-1:*** *It is not clear why the Final Steps 3b and 4 Baseline Environmental Risk Assessment (BERA) for SWMUs 1 & 2, NAPR, Ceiba, Puerto Rico, dated January 2007 (2007 BERA) is referenced as the source of the decontamination procedures. However, treatment and disposal procedures for the decontamination of equipment and solutions have not been presented in the 2007 BERA. As a result, the reference to the 2007 BERA does not appear appropriate. Revise the Draft ICM WP to include technical specifications and SOPs for decontamination procedures.*

**Navy Response to EPA Specific Comment 2:** References to BERA for decontamination procedures will not be included in the ICM Work Plans developed for SWMUs 1 and 2. Treatment and disposal procedures for decontamination of residual soils and liquids will be performed under the procedures outlined in the Navy's September 14, 1995 document: "Final RCRA Facility Investigation (Project Management Plan), Naval Station Roosevelt Roads, Puerto Rico. Volume I of II, Contract Task Order 0223" Baker Environmental, Inc. This will be described in the future ICM work plans developed for SWMUs 1 and 2.

3. ***Section 4.1, Mobilization and Site Preparation, Page 4-1:*** *According to the text, "Site preparation will include verifying utility locations, installing erosion controls, clearing and grubbing (where required), constructing lay down and staging areas, establishing*

*access routes for equipment and transport vehicles, and delineating work areas." However, technical specifications, drawings, and SOPs have not been provided for these activities. As such, the Draft ICM WP does not provide the level of detail required of a functional work plan. Revise the Draft ICM WP to include technical specifications, drawings, and SOPs for the site activities associated with mobilization and site preparation, such as those listed in Section 6.5.3 (Site Preparation).*

**Navy Response to EPA Specific Comment 3:** Site activities (including SWMU 1 and 2 clearing and grubbing, SWMU 2 surface debris removal, and SWMU 1 and 2 delineation soil sampling) were completed prior to receipt of the January 8, 2010 USEPA comments. Future field activities will be performed in accordance with ICM Design Packages developed separately for SWMUs 1 and 2 which will include SOPs, drawings and specifications for the proposed sampling and removal activities to be performed at each site.

4. ***Section 4.3, Surface Soil Delineation Sampling, Page 4-1:*** *Section 4.3 implies that samples will be taken from zero to one foot below ground surface (bgs) and one to two feet bgs at all sampling locations within SWMU 2. The text states that, "[a]s indicated in Table 4-1, surface soil samples at SWMU 1 will be taken to a depth of 0-1 ft bgs; at SWMU 2, samples will be taken at 0-1 ft bgs, and 1-2 ft bgs (see Table 4-2)." However, according to Table 4-2 (SWMU 2 Pre-Excavation Delineation Sampling Matrix), subsurface sampling will not be collected at 2SS02, 2SS10, 2SS11, or 2SS14 (which is consistent with the 2007 BERA). Revise Section 4.3 and Table 4-2 to resolve this discrepancy.*

**Navy Response to EPA Specific Comment 4:** Samples will be taken from zero to one foot below ground surface (bgs) at SWMU 1 and from one to two feet bgs at sampling locations within SWMU2. Tables describing sample depths will be included in the future SWMU 1 and SWMU 2 work plans.

5. ***Section 4.4, Surface Debris Removal Procedures, Page 4-1:*** *Section 4.4 states that, "[d]uring debris removal, good engineering practices and appropriate measures will be implemented to control both contaminant releases and general exposure to workers." However, details regarding these "good engineering practices and appropriate measures" have not been discussed in the Draft ICM WP. Revise the Draft ICM WP to clearly define the engineering practices and appropriate measures that will be implemented during debris removal to control both contaminant releases and general exposure to workers.*

**Navy Response to EPA Specific Comment 5:** Debris removal activities described in the November 19, 2009 Draft ICM Work Plan were completed prior to receipt of this comment (refer to General Response Comments E). Future debris removal activities to be performed at SMWU 1 and SWMU 2 will be performed following the procedures identified in the ICM Design Packages prepared for each of the two SWMUs. The design packages will include SOPs, drawings, and specifications; clearly defining engineering practices and appropriate measures to be implemented during debris removal to control both contaminant and general exposure to workers.

6. ***Section 4.4, Surface Debris Removal Procedures, Page 4-1:*** *Erosion prevention measures have not been discussed in the Draft ICM WP. According to Section 4.4, Right Way Environmental Contractors, Inc. (RWEC) will not restore or replace trees that are damaged or removed for site access, or that are damaged as a result of remediation activities. As a result, it is not clear how erosion will be prevented due to the removal of trees and vegetation at the sites. It should be noted that the only references to site re-vegetation and/or erosion control are presented in Section 6.5.3 (Site Preparation) and Appendix D (Project Schedule). Section 6.5.3 states that, necessary erosion controls will be constructed and Appendix D includes a line item for site re-vegetation. Revise the Draft ICM WP to include details regarding erosion prevention measures and site re-vegetation efforts to reduce potential erosion at the sites.*

**Navy Response to EPA Specific Comment 6:** Sampling at SWMU 1 and 2 and removal activities at SWMU 2 were completed prior to receipt of this comment (refer to General Response Comments E). Future field activities will be performed under separate ICM Design Packages developed for SWMU 1 and SWMU 2 which will include SOPs, drawings and specifications for vegetation restoration and erosion protection measures.

7. ***Section 5.1, Protection of Features, Page 5-1:*** *It is not clear whether trees outside of the authorized removal areas will be restored. The second paragraph of Section 5.1 states that, "[a]ny tree scarred or damaged by RWEC's operations outside of authorized removal areas will be restored as much as possible to its original condition." However, the paragraph also states that, "[t]rees that are damaged and/or removed as part of clearing for access or remediation activities will not be replaced." As a result, it is not clear if trees will be restored or not. Revise the Draft ICM WP to clarify whether trees outside of the authorized removal areas will be restored.*

**Navy Response to EPA Specific Comment 7:** SWMU 1 and SWMU 2 work plans shall include text stating that "trees damaged and/or removed as part of clearing for access, sampling or debris removal activities will not be replaced by RWEC." Further, the SWMU 1 & 2 work plans will state that mangrove trees greater than 3 inches in diameter will be left standing. Also, wetland vegetation will be replaced in accordance with the project drawings and specifications.

8. ***Section 5.1, Protection of Features, Page 5-1:*** *According to Section 5.1, "[a]ll streams, waterways, and storm drainage systems will be protected from damage and from sedimentation." However, the measures to be utilized to protect against damage and sedimentation have not been identified or discussed in the Draft ICM WP. Revise the Draft ICM WP to provide details regarding how streams, waterways, and storm drainage systems will be protected from damage and from sedimentation.*

**Navy Response to EPA Specific Comment 8:** Site activities presented in the November 19, 2009 Draft ICM Work Plan including sampling and debris removal at SWMU 2 were completed prior to receipt of this comment (refer to General Response Comments E). Future field activities including additional delineation sampling and debris removal at SWMUs 1 and 2 will be performed under separate ICM Design Packages. These design packages will

clearly define erosion and sedimentation control requirements at each of the sites by describing SOPs included in a basis of design document, construction drawings and project specifications.

9. ***Section 5.2, Traffic Plans, Page 5-1:*** *Details regarding the coordination between RWEC, the Navy Technical Representative (NTR), and the Public Works Point of Contact (POC) to determine an appropriate haul route for equipment and/or material deliveries, as well as transport of wastes off site, has not been included in Appendix D (Project Schedule). As a result, it is not clear when this coordination will occur, how long it will take, and how it will impact the project schedule. Revise Section 5.2 and Appendix D to provide details regarding when traffic planning will occur, how long it will take, and how it will impact the project schedule.*

**Navy Response to EPA Specific Comment 9:** Details regarding traffic planning will be discussed during the project kickoff meeting. It is not expected that traffic planning will affect the project schedule. Therefore, a timeline for traffic planning does not warrant inclusion into the future project schedule to be developed and incorporated in each of the future draft ICM work plans developed for SWMUs 1 and 2.

10. ***Section 5.4, Dust Control Plan, Page 5-3:*** *It does not appear that dust monitoring at the perimeter of SWMUs 1 and 2 has been proposed. As a result, it is not clear how dust will be monitored and ultimately prevented from migrating beyond the construction limits. Revise the Draft ICM WP to include the use of dust monitoring equipment to monitor the perimeter of SWMUs 1 and 2 to prevent the migration of dust beyond the construction and SWMU 1 and 2 limits.*

**Navy Response to EPA Specific Comment 10:** Dust control will be conducted during future corrective measure activities at SWMUs 1 and 2 in accordance with the Site Safety and Health Plan (SSHP), included as part of the Draft ICM Work Plan for SWMUs 1 and 2. The SSHP will outline equipment and methods required to perform a dust monitoring program at each site.

11. ***Section 6.8.2, Requirements, Page 6-8:*** *It is not clear why the individual inspections, tests, and observations referenced in Section 6.8.2 have not been included on a schedule and/or timetable. Section 6.8.2 states that, "[i]ndividual inspections, tests, and observations will be scheduled at predetermined points in the project." However, these predetermined points have not been provided or discussed. Revise the Draft ICM WP to include a schedule and/or timetable for these predetermined points.*

**Navy Response to EPA Specific Comment 11:** In accordance with RWEC's internal QA/QC program, future inspections will be at random intervals, the schedule of which shall only be known to the QC Officer or QC Team to ensure spontaneous inspections and deterring the field personnel from preparing for the inspections. Therefore, these inspections will not be indicated on the schedule included as part of the ICM work plans developed for SWMUs 1 and 2.

**PREQB COMMENTS ON THE DRAFT PHASE I INTERIM CORRECTIVE MEASURES WORK PLAN FOR SWMUs 1 AND 2, DATED JANUARY 20, 2010**

## GENERAL COMMENTS

1. *Please provide a reference in the text to the Quality Assurance Project Plan (QAPP) that provides the quality assurance (QA) and quality control (QC) for this program. Specifically, the required analytical methods, reporting limits versus cleanup criteria, field QC sample frequency and acceptance criteria, laboratory QC sample frequency and acceptance criteria, data validation requirements, the name of the laboratory performing the work, etc. were not provided. It appears that Final Steps 3B and 4 of the Baseline Ecological Risk Assessment at SWMUs 1 and 2 (January 2007) are referenced for sampling methods. The analytical methods cited in Table 5-4 of this same document need to be used for this program and referenced in the QAPP.*

**Navy Response to PREQB General Comment 1:** In a letter to EPA dated April 17, 2008, the Navy addressed the DQOs, SOPs, and QAPP requirements for EPA approval. Specifically, the EPA approved Master Project Plans ("Final RCRA Facility Investigation (Project Management Plan) Naval Station Roosevelt Roads Puerto Rico Volume I of II", Baker, September 14, 1995), which include the Project Management Plan (PMP), Data Collection Quality Assurance Plan (DCQAP), Data Management Plan (DMP), and Health and Safety Plan (HASP) for NAPR. These Master Plans and specifically, the Final Data Collection Quality Assurance Plan (DCQAP), define acceptable data requirements and error levels associated with the field and analytical portions of this CMI. Additionally, a table was developed which provides a map between the DCQAP sections and the sections required by "EPA Requirements for Quality Assurance Project Plans" (QZ/R-5) (EPA 2001). Reference to this EPA letter dated April 17, 2010 will be included in the future ICM work plans to be developed for SWMUs 1 and 2.

The following text will be included in both the SWMU 1 and SWMU 2 work plans so as to reference the use of Table 5-4 (BERA, January 2007): "Analytical methods and analytical data levels contained in Table 5-4 of the Final Steps 3B and 4 of the Baseline Ecological Risk Assessment at SWMUs 1 and 2, January 2007 will supersede the Master Project Plan QAPP analytical methods and analytical data levels for this Work Plan".

2. *The text document must be revised in order to be specifically address toward sampling and debris removal activities. Since the document creates the impression to be a construction work plan.*

**Navy Response to PREQB General Comment 2:** Sampling activities were conducted at SWMU 1 & 2 and debris removal was performed at SWMU 2 prior to receipt of this comment (refer to General Response Comments E). Future field activities will be performed under separate ICM Design Packages for SWMUs 1 and 2 which will include SOPs, drawings and technical specifications.

**PAGE-SPECIFIC COMMENTS**

1. *Section 1: Please include a brief summary of the rationale for only collecting soil samples at shallow depths within SWMUs 1 and 2. This information is needed to support the scope of this interim measure.*

**Navy Response to PREQB Page-Specific Comment 1:** The following rational was taken from Section 4.2 of Final Additional Data Collection Report and Screening Level Ecological Risk Assessment and Step 3A of Baseline Ecological Risk Assessment at SWMUs 1 and 2, Baker Environmental, Inc., May 18, 1996 and will be added as a separate paragraph in Section 1 of future ICM work plans for SWMUs 1 and 2; "Analytical data for soil samples collected from the surface to a maximum depth of one-foot bgs during the Supplemental field investigation, 1996 and 1997 RFI field investigations, and the 2004 additional data collection field effort were quantitatively evaluated as surface soil in the screening-level ERA. This depth range is the most active biological zone (most soil heterotrophic activity occurs within the surface soils and soil invertebrates occur on the surface or within the oxidized root zone" [Suter II, G.W. 1995. Guide for Performing Screening Ecological Risk Assessments at DOE Facilities. Oak Ridge National Laboratory, Environmental Restoration Division, ORNL Environmental Restoration Program. ES/ER/TM-153])

2. *Page 1-2, Section 1.2.2, Paragraph 1: In order to support the rationale for actual sampling and analysis activities, please briefly summarize in the text of this section which analyses the previously-collected soil samples were subjected to that resulted in the identification of the presence of the select metals and pesticides currently listed.*

**Navy Response to PREQB Page-Specific Comment 2:** The following rationale will be added to the ICM Work Plan for SWMU 1; "Previous investigations completed at SWMU 1 (refer to Baker, 1999; Baker, 2006; and Baker 2007) indicate the presence of pesticides (4,4′-DDD, 4,4′-DDE, 4,4′ DDT) and metals (antimony, cadmium, copper, lead, tin, mercury and zinc) in the surface soil (0-1 feet [ft] below ground surface [bgs]) above the screening criteria developed in Baker 2007. The analytical results from previous sampling events substantiate the selected contaminants of concern analyzed under this work plan."

3. *Page 2-3, Section 2.5.3: According with the text the Quality Control System Manager's (QCSM) duties implementation will be delegated to the Quality Control Officer. The individual responsible to act as Quality Control System Manager is the same individual responsible for being the Site Superintendent (according to Section 2.5.5). Based on the responsibilities of the Quality Control System Manager, this individual needs to be someone who works independent of the project and has overall authority on quality control and therefore cannot be the same person who works day-to-day with the project manager in the field. Please update accordingly.*

**Navy Response to PREQB Page-Specific Comment 3:** Mr. Carlos Brown is the Quality Control System Manager (QCSM) designated for this project. This will be identified in the organization chart to be included in future ICM work plans for SWMUs 1 and 2. Mr. Brown does not directly report to anyone on the project. He has the authority to oversee and execute

QC activities and as such has delegated the implementation of the QC field activities to the QC Officer, Mr. Alejandro Rodriquez. Mr. Brown has delegated his "QC duties" to the QC Officer in the field, Mr. Rodriquez. To clarify Mr. Brown's responsibilities, all reference to interface with the PM will be removed from the future work plans. The organization chart in each of the future ICM work plans will be updated to reflect these roles.

4. *Page 2-3, Section 2.5.3 and Page 2-4, Section 2.5.7: A QC Officer is referenced in these sections as well as other sections later in the document. However, a description of the position as well as the name of the individual responsible for this position needs to be provided. It is the reviewer impression that the document identified the Site Superintendent to be responsible to manage, among others, quality aspects of the project implementation. Please clarify.*

**Navy Response to PREQB Page-Specific Comment 4:** The Quality Control (QC) Officer for the ICM field work to be conducted at each of the two SWMUs has been identified as Mr. Alejandro Rodriquez. The future ICM work plans for SWMUs 1 and 2 will incorporate this information, including a description of the QC Officer role. The QC Officer has the primary responsibility for implementing the CQC Plan.

The Site Superintendent has primary responsibility for managing project implementation in the field. So, the QC Officer implements the CQC Plan while the Site Superintendent manages the implementation of field activities to include quality. Additionally, if QC Officer has a CQC Plan Deficiency issue with field activities, it will be the responsibility of the Site Superintendent to improve quality to the satisfaction of the QC Officer.

5. *Page 3-2, Section 3.5.1, Paragraph 1: Please include steps to contain the dry decontamination process, such carrying out the process on plastic sheeting to ensure that potentially impacted soil will not be allowed to contact the surface below the equipment. It is also inferred that only heavy equipment is suitable to dry decontamination procedures, please clarify and clearly state in the text.*

**Navy Response to PREQB Page-Specific Comment 5:** Future ICM work plans will include text requiring performance of dry decontamination on plastic sheeting to contain the removed soils; "To collect and control any removed debris during the dry decontamination, it will be performed over the plastic lined decontamination pad or the approved waste storage container to ensure that potentially impacted soils will not contaminate the ground surface".

6. *Pages 3-2 and 3-3, Section 3.5.2:*
   a. *Please clarify or provide examples of the equipment on which the decontamination procedure on page 3-2 would be used versus the equipment on which the decontamination procedure on page 3-3 would be used. The procedure on page 3-2 should be used for reusable sampling equipment as well such as hand augers, stainless steel spoons, etc.*

**Navy Response to PREQB Page-Specific Comment 6a:** Future ICM work plans for SWMUs 1 and 2 will describe two wet decontamination procedures; one section of the work plan will

describe a procedure for heavy equipment and another section will describe decontamination procedures to be implemented for sampling equipment. Each section will provide examples of the type of equipment on which the decontamination procedure is required.

b. *It is unclear what the following statement means: "To the greatest extent possible, sampling equipment will not be field decontaminated." Please clarify which equipment will be decontaminated and provide the procedure planned for use.*

**Navy Response to PREQB Page-Specific Comment 6b:** The word "not" was not necessary in this sentence, and ultimately, misleading to the reader. Future ICM work plans to be developed for SWMUs 1 and 2 will include the following statement: "It is not possible to exclusively use disposable sampling equipment, therefore to the greatest extent possible, non-disposable sampling equipment will be field decontaminated".

7. *Page 3-2, Section 3.5.2, Bullet 4*
   a. *Sub-bullets 1 and 3: Please indicate, in addition to noting that the potable water rinses will be changed frequently, that it will be containerized appropriately for subsequent sampling and determination of the appropriate means of disposal. This comment also applies to the subsequent discussion of the field decontamination of reusable equipment and personal protective equipment.*

**Navy Response to PREQB Page-Specific Comment 7a:** Future ICM work plans to be developed for SWMUs 1 and 2 will clarify the equipment decontamination procedure by providing additional details such as: "All containerized fluids will be sampled and analyzed for disposal purposes" and "Use potable water, change water frequently and containerize used fluids properly".

b. *Sub-bullet 5: It is unlikely that evidence of high metals concentrations will be visible. Therefore, please incorporate the nitric acid rinse into the decontamination procedure to account for this.*

**Navy Response to PREQB Page-Specific Comment 7b:** A nitric acid rinse will be added into the decontamination procedure described in future ICM work plans to be developed for SWMUs 1 and 2.

8. *Page 3-3, Section 3.6, Last Sentence: The project schedule presented at Appendix D does not considered a time frame for permit to be obtained from the Puerto Rico Environmental Quality Board (PREQB). It is likely that a General Permit will be required by PREQB for Erosion Control and Non Hazardous Waste Generation Activity.*

**Navy Response to PREQB Page-Specific Comment 8:** A permit is typically issued from PREQB the same day that it is applied for. Therefore, a time frame for a permit to be obtained from the PREQB will not be included in the schedule which will be part of future ICM work plans to be developed for SWMUs 1 and 2.

9. *Page 4-1, Section 4.2, Paragraph 1: This section indicates in general terms that a surveyor will be subcontracted as necessary. Please indicate specifically that the proposed sampling locations and debris removal areas will be surveyed. Also, please clarify if the surveyors will return to the site to re-survey any sampling locations that may have had to be moved due to refusal or other obstructions and if the debris removal areas expand beyond their initial proposed limits.*

**Navy Response to PREQB Page-Specific Comment 9:** Text will be included in future ICM work plans to be prepared for SWMUs 1 and 2 stating that the surveyors will be requested to return to the site to re-survey any sampling locations that may have been moved due to refusal or other obstructions and if the debris removal areas change from their initial proposed limits

10. *Page 4-1, Section 4.3, Paragraph 1: Although direct inclusion, at the ICM Work Plan, of soil sampling collection procedures is recommended. As the procedures for the collection of the soil samples are not provided herein but rather, by reference, please provide a copy of the Final Step 3b and 4 BERA (Baker, 2007) to field personnel for review prior to the initiation of field operations to ensure that the appropriate procedures are followed.*

**Navy Response to PREQB Page-Specific Comment 10:** A copy of the soil sampling collection procedures as presented in Final Step 3b and 4 BERA (Baker 2007) will be made available to all field personnel assigned to the SWMU 1 and 2 soil sampling activity prior to the initiation of field operations to ensure that the appropriate procedures are followed.

11. *Page 5-2, Section 5.3.2: Please include in this section (or in the Site Specific Safety and Health Plan) the reportable quantities of the possible substance that can cause a spill on site for personnel reference.*

**Navy Response to PREQB Page-Specific Comment 11:** It is expected that any substance brought on site will be below the reportable quantity limit that would trigger a reportable incident. However, the following sentence will be included in the appropriate place in future ICM work plans for SWMUs 1 and 2: "the reportable quantities of a release can be found in 40 CFR 302.5 (Table 302.5 – List of Hazardous Substances and Reportable Quantities)."

12. *Page 6-3, Section 6.3, Second Paragraph: The text specified that "The QC Officer will closely monitor the actual field testing, verifying proper procedure technique, sample handling, chain of custody, if required." It is not clear what is mean by this statement. Please revise to clearly stated what should or could be required from the QC Officer since proper procedures, sampling handling and chain of custody use is in fact required as part of the activities.*

**Navy Response to PREQB Page-Specific Comment 12:** This sentence contains a typo; the word "if" should be replaced with "as". The correct sentence will be incorporated in future ICM work plans to be developed for SWMUs 1 and 2.

13. *<u>Page 6-3, Section 6.4:</u> Please include within this section the procedures for changes that could affect the work plan. If they are to be pre-authorized by or discussed with the Quality Officer.*

**Navy Response to PREQB Page-Specific Comment 13**: The following sentence will be included in future ICM work plans to be developed for SWMUs 1 and 2: "In summary, the NTR will determine if the Field Variance Report (FVR) represents a significant change to the work plan. Procedure for resolution of FVR requires agreement between RWEC personnel (Project Manager, Site Superintendent, or QC Officer) and NTR".

14. *<u>Page 6-7, Section 6.6.4:</u> Please discuss what quality objectives will define unacceptable work.*

**Navy Response to PREQB Page-Specific Comment 14:** The following text will be included in future ICM work plans to be developed for SWMUs 1 and 2: "Additional preparatory and initial phase inspections will be conducted of the same DFWs if the quality of ongoing work is unacceptable (i.e. work not executed in accordance with this Work Plan), if there are changes in the CQC staff or work crew, if work on a DFW is resumed after a substantial period of inactivity or if other problems develop."

15. *<u>Page 7-1, Section 7.1:</u>*
    a. *4th bullet: Please clarify what the cleanup criteria are for this program.*

**Navy Response to PREQB Page-Specific Comment 15a:** The term "cleanup criteria" as it relates to this Work Plan is associated with the removal of surface debris and not soil removal. The cleanup criteria for SWMU 1 and SWMU 2 are the collection, removal, and proper disposal of all visual debris on the ground within the debris areas. This information will be included in future ICM work plans to be developed for SWMUs 1 and 2.

    *b. 6th bullet: Please clarify what the data validation requirements are for this program.*

**Navy Response to PREQB Page-Specific Comment 15b:** Future ICM work plans to be developed for SWMUs 1 and 2 will include the following statement: "Copies of all analyses performed including QC data will be certified by a PR chemist." Since this section refers to the Construction Completion Report, validation is not required.

16. *<u>Table 4-1:</u> Based on the table, there are 126 surface soil samples being collected at SWMU 1. There are 12 field duplicates planned for collection. If the typical field duplicate frequency of one per 10 samples is being used, one additional sample should be designated as a field duplicate.*

**Navy Response to PREQB Page-Specific Comment 16:** The number of duplicate samples required to meet QC requirements will be determined during the development of future ICM work plans for SWMUs 1 and 2. Future ICM work plans will provide QC requirements to achieve a minimum frequency of one duplicate sample per ten samples and one MS/MSD sample per 20 samples.

17. *Table 4-2:*

a. *Based on the table, there are 158 soil samples being collected at SWMU 2. There are 15 field duplicates planned for collection. If the typical field duplicate frequency of one per 10 samples is being used, one additional sample should be designated as a field duplicate.*

**Navy Response to PREQB Page-Specific Comment 17a:** The number of duplicate samples required to meet QC requirements will be determined as future ICM work plans for SWMUs 1 & 2 are developed, keeping in mind a minimum frequency of one duplicate sample per ten samples and one MS/MSD sample per 20 samples will be required.

b. *Please clarify why soil samples at SWMU 2 are being analyzed for the same list of constituents as SWMU 1. According to Section 1.2.3, the only constituents of concern at SWMU 2 are antimony, copper, lead, and mercury. Therefore, it is unclear why cadmium, tin, zinc, DDD, DDE, and DDT were also included. Analysis of the samples for the four metals would also be consistent with what was performed for surface soil at SWMU 2 during the baseline ecological risk assessment field investigation.*

**Navy Response to PREQB Page-Specific Comment 17b:** The correct sample parameters will be included in future ICM work plans for SWMUs 1 and 2. Cadmium, tin, DDD, DDE, and DDT will not be included in the list of analytes provided for SWMU 2. In addition, a separate QA/QC table will be included for samples obtained from SWMU 2.

18. *Figure 1-4:*

a. *This figure indicates that only select locations will be subjected to sampling at both the 0-1 ft bgs and 1-2 ft bgs intervals. Three of the previous soil sampling locations around which additional sampling is proposed to take place (2SS10, 2SS11 and 2SS14) are locations at which only surface soils were collected in 2004. As there does not appear to be data at these three locations to indicate whether there are subsurface impacts, please collect subsurface soil samples in these three areas to delineate potential impacts.*

**Navy Response to PREQB Page-Specific Comment 18:** Sampling depth intervals are based on historic sampling data that indicates contaminants present at 1-2 feet in debris pile areas. Samples located associated with locations 2SS02, 2SS10, 2SS11 and 2SS14 are outside debris pile areas are not expected to have contamination at depth interval of 1-2 feet.

19. *Appendix A, Organizational Chart:*

i. *The personnel listed in the project organization chart do not agree with Section 2 of the Work Plan as follows.*

i. *Quality Control System Manager is listed in Section 2 but not included in the Chart.*

ii. *There appears to be a typo in the name of the Safety and Health Officer, revise if it is Felix Gonzalez or Felix Gonzalez.*

iii. *The chart lists Alejandro Rodríguez as Quality Control Manager and Felix Gonzalez as Safety and Health Manager. Meanwhile, Section 2.5.5 appoints Luiz Ríos as responsible of managing all aspects of project implementation including quality and safety, among others.*

ii. *Revise the organizational chart to ensure that all positions described in Section 2 of this document, including the QC Officer, are included and that Section 2 correctly and clearly describes the responsibilities of each personnel.*

**Navy Response to PREQB Page-Specific Comment 19:** The names of the individuals representing RWEC identified in the Appendix A Organization Chart for the Draft ICM Work Plan for SWMUs 1 and 2 are correct. The names of the RWEC personnel in future ICM work plans to be developed separately for SWMUs 1 and 2 will correspond to the Organization Chart. The Quality Control System Manager will be identified in future organization charts. The spelling of Felix Gonzalez name will be corrected. As for Mr. Luiz Rios, he is responsible for managing all aspects of project implementation including quality and safety, among others. Mr. Rios is responsible for implementation of quality, not managing the CQC Plan. Mr. Rodriquez is responsible for managing the CQC Plan.

20. *<u>Appendix B, Site Specific Safety and Health Plan:</u>*

i. *Section 3.2 of this safety and health plan lists the Key Personnel which does not agree with Table 9.3 of this safety and health plan, Section 2 of the Work Plan or Appendix A of the Work Plan, the organizational chart. Please update all sections to be consistent.*

**Navy Response to PREQB Page-Specific Comment 20(i):** The Safety and Health Plan to be developed for SWMUs 1 and 2 will correspond with the text of the Work Plan and Appendix A.

ii. *Section 8.1 of this safety and health plan incorrectly refers to SWMU 68. Please correct.*

**Navy Response to PREQB Page-Specific Comment 20(ii):** All references to SWMU 68 will be omitted from the future ICM work plans developed for SWMUs 1 and 2.

**UNITED STATES DEPARTMENT OF THE INTERIOR, FISH AND WILDLIFE SERVICE, COMMENTS ON THE DRAFT PHASE I INTERIM CORRECTIVE MEASURES WORK PLAN FOR SWMUs 1 AND 2, DATED DECEMBER 10, 2009**

**GENERAL COMMENTS**

1. *Both of these sites are located within mangrove wetlands. The enclosed figures do not adequately show the wetland limits in relation to the work being proposed. The removal of the debris piles, while beneficial could impact the wetlands if temporary roads or fill needs to be placed to access them.*

**Navy Response to Fish and Wildlife General Comment 1):** The exact limits of mangrove wetland and debris piles were not known at the time of development of the November 19, 2009 Phase I ICM Work Plan for SWMU 1 and 2. No temporary roads or fills were constructed for debris removal at SWMU 2 (refer to General Response Comment D and E). Future SWMU 1 and SWMU 2 ICM Design Package will include a provision for locating and marking the limits of the mangrove wetland prior to soil excavation activities.

2. *Surface soil samples areas should also be accessed on foot. Surface soil samples would be taken by hand auger or similar hand held instrument.*

**Navy Response to Fish and Wildlife General Comment 2):** To ensure undue damage to the surrounding ecology, soil samples locations will be accessed on foot and soil samples will be taken by hand auger or similar hand held instruments during future soil sampling events at SWMUs 1 and 2.

3. *Any wetland vegetation impacted by the action must be replaced as soon as the work is completed.*

**Navy Response to Fish and Wildlife General Comment 3):** Additional work at these sites will include additional soil sampling, soil excavation, backfill and site restoration. Future SWMU 1 and SWMU 2 ICM design packages will include a provision to avoiding impacting wetlands. If wetland vegetation is impacted a procedure will be provided to reestablish wetland vegetation as soon as all work is completed.

4. *Trees over 3 inch diameter must be left standing.*

**Navy Response to Fish and Wildlife General Comment 4):** The following statement will be included in future SWMU 1 and 2 ICM design packages: "Where practicable, trees over 3 inches in diameter will be left standing and mangrove trees will not be cut at the trunk only removal of low lying limbs as needed. "

5. Mangrove trees must not be cut at the trunk; clear of low lying limbs is allowed.

**Navy Response to Fish and Wildlife General Comment 5):** The following statement will be

included in the future SWMU 1 and 2 ICM design packages: “Where practicable, trees over 3 inches will be left standing and mangrove trees will not be cut at the trunk only removal of low lying limbs as needed.”