

The Baker logo consists of the word "Baker" in white, sans-serif font, centered within a solid blue rectangular background.**Michael Baker Jr., Inc.***A Unit of Michael Baker Corporation*

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October 21, 2010

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

Attn: Mr. Adolf 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) 0002  
U.S. Naval Activity Puerto Rico (NAPR)  
EPA I.D. No. PR2170027203  
Revised Final Phase I of the Corrective Measures Study Investigation for  
SWMU 74 – Fuel Pipelines and Hydrant Pits and  
Final Corrective Measures Study Work Plan for SWMU 74

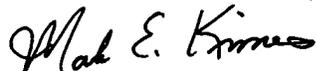
Dear Mr. Everett:

Michael Baker, Jr., Inc. (Baker), on behalf of the Navy, is pleased to provide you with one hard copy of the replacement pages for the response to EPA comments on the Final Phase I of the Corrective Measures Study Investigation (CMS) for SWMU 74 – Fuel Pipelines and Hydrant Pits, Naval Activity Puerto Rico (letter dated July 9, 2010) for your review and approval. These replacement pages make up Addendum A – Phase II of the CMS Investigation Work Plan for SWMU 74 to the Final Corrective Measures Study Work Plan for SWMU 74. Directions for inserting the replacement pages into the Final Corrective Measures Study Work Plan for SWMU 74 (December 6, 2007) are provided for your use. Also included with the copy of the replacement pages is one electronic copy provided on CD of the Final Corrective Measures Study Work Plan and Addendum A for SWMU 74.

This document is being submitted in accordance with EPA comments dated September 16, 2010. The Navy responses to these comments are attached for your review. Additional distribution has been made as indicated below.

If you have questions regarding this submittal, please contact Mr. Mark Davidson at (843) 743-2124.

Sincerely,

**MICHAEL BAKER JR., INC.**A handwritten signature in black ink that reads "Mark E. Kimes".

Mark E. Kimes, P.E.  
Activity Coordinator

MEK/lp  
Attachments

Mr. Adolf Everett, P.E.  
U.S. Environmental Protection Agency, Region II  
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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, USEPA Region II (1 hard copy and 1 CD)  
Mr. Carl Soderberg, US EPA Caribbean Office (1 hard copy and 1 CD)  
Ms. Bonnie Capito, NAVFAC Atlantic-Code EV42 (1 hard copy for the Administrative Record)  
Mr. Felix Lopez, US F&WS (1 CD)  
Mr. Brenda Smith, TechLaw, Inc. (1 CD)  
Ms. Wilmarie Rivera, PREQB (1 CD)  
Ms. Gloria Toro, PREQB (1 hard copy and 1 CD)

**NAVY RESPONSE TO EPA'S  
TECHNICAL REVIEW (DATED SEPTEMBER 16, 2010) OF THE  
FINAL PHASE I OF THE CORRECTIVE MEASURES STUDY INVESTIGATION FOR  
SWMU 74; ADDENDUM A – PHASE II OF THE CMS WORK PLAN FOR SWMU 74  
(DATED JULY 2010)  
NAVAL ACTIVITY PUERTO RICO  
CEIBA, PUERTO RICO**

The following are EPA's comments (in *italics*) on the *Final Phase I of the Corrective Measures Study Investigation for SWMU 74; Addendum A – Phase II of the CMS Work Plan for SWMU 74 (Addendum)*, Naval Activity Puerto Rico (NAPR), Ceiba, Puerto Rico, dated July 2010 and the Navy Response (in plain text).

**GENERAL COMMENTS**

**EPA General Comment 1:** *Contingency borings are specified for most of the areas that are to be sampled during Phase II; however, the exact method to be used to locate the contingency borings is not specified. Elaborate on the method to be used to locate the contingency borings. If the contingency borings will be installed as “step-outs” from the proposed boring locations, discuss how far each “step-out” will be and how this distance will be determined. In addition, the Addendum should state that all contingency boring locations will be provided to the regulatory agencies for review and approval prior to implementation.*

**Navy Response to EPA General Comment 1:** It is the intent of the soil borings and associated soil samples specified in Addendum A to provide sufficient data to delineate TPH in a majority of the areas identified during the Phase I Investigation. These borings will be installed at agreed upon locations as identified on Figures 2 through 11 - of Addendum A. It is the intent of including contingency borings in Phase II of the CMS Investigation to give the Project Manager and Field Geologist/Site Supervisor a significant amount of flexibility to chase potential contamination based on field observations such as visual or olfactory signs of contamination or elevated PID measurements. As a general rule, the contingency borings will be installed as “step-outs” from the proposed boring location, if needed, at a distance of approximately 10 to 25 feet, based on site conditions. However, the contingency boring locations and depths may be adjusted in the field as necessary to provide the best delineation coverage. Additionally, not all contingency borings may be used and excess borings from one site may be shifted to another site, as needed. The text of the Sampling Objectives and Approach of Addendum A will be revised to include a discussion of the contingency boring locations and the step-out distances.

The locations of the soil borings that are to be installed during the initial portion of the Phase II delineation investigation are provided in Addendum A for regulatory review and approval. However, the locations of the contingency borings will be determined in the field and installed during the course of the drilling program. As much as possible, the proposed locations of the contingency soil borings will be provided to the regulatory agencies for review. However, to minimize the drilling and sampling program downtime, contingency boring installation will proceed based on approval from the Project Manager and/or Field Geologist/Site Supervisor. All

contingency boring locations and the rationale for their placement will be documented in the field logbook and discussed in the Phase II CMS Investigation Report.

**EPA General Comment 2:** *A screening value of 25% of the Puerto Rico Environmental Quality Board (PREQB) total petroleum hydrocarbons (TPH) criteria for soil and groundwater was used in the Phase I investigation to identify areas potentially impacted by the hydrocarbon releases. For the Phase II investigation, the PREQB criteria for TPH in soil and groundwater will be used as the principal criteria to delineate to potential extent of contamination. Explain and justify the use of the higher (400% higher) screening values for the Phase II portion of the investigation as well as the potential for inadequate delineation of contamination as a result of the higher screening values.*

**Navy Response to EPA General Comment 2:** The change in screening values is a reflection of the change in objectives between Phase I and Phase II of the CMS Investigation for SWMU 74. One of the objectives of Phase I of the CMS Investigation was to identify areas impacted by potential releases from the fuel pipelines and hydrant pits. To meet this objective, a broad geographical area was screened using a relatively low TPH screening value of 25 percent of the PREQB regulatory criteria for TPH to conservatively ensure that even areas with relatively low levels of TPH contamination would be identified and recommended for further investigation under Phase II, as documented in the approved Revised Final Phase I of the CMS Investigation for SWMU 74 (Baker, July 9, 2010). One of the objectives of Phase II of the CMS Investigation is to delineate the extent of TPH contamination in soil and groundwater identified during the Phase I investigation. It is appropriate to use the actual PREQB regulatory criteria for TPH in soil and groundwater (as opposed to a TPH screening value) to meet the Phase II CMS Investigation objectives (i.e., delineation rather than screening/identification) so that a realistic delineation of the TPH contamination in soil and groundwater requiring additional action or evaluation may be developed and carried into subsequent phases of the CMS.

## **SPECIFIC COMMENTS**

**EPA Specific Comment 1:** *Airfield Area Investigation, Page A-3: The second and last bullet points on this page discuss the collection of surface and shallow subsurface soil samples in order to horizontally delineate TPH impacts. If the investigation results indicate PID or other visual/olfactory observations at the bottoms of these borings, then NAPR should consider extending these borings deeper in order to delineate the vertical extent of TPH impacts.*

**Navy Response to EPA Specific Comment 1:** The Navy concurs with this comment. The second bullet under the Airfield Area Investigation, Segment A – Aircraft Hydrant Refueling Area and the first bullet under Segment C – Airfield Fuel Pipeline Area will be revised to include a statement that indicates that if PID measurements or other visual/olfactory observations indicate potential contamination in the 1 to 3 foot below ground surface (bgs) interval, the boring may be advanced to the water table with the collection of subsurface soil samples following the procedure in the Sampling Objectives and Approach.

**EPA Specific Comment 2: SWMU 9 Area A/B, Page A-4:** *The second sentence in the fourth bullet point states that proposed soil borings 74SB582, 74SB584 and 74SB586 will be converted*

to groundwater monitoring wells; however, Figure 6, Proposed Sample Locations SWMU 9 Area A/B, appears to indicate that proposed soil boring 74SB585, not 74SB586, will be converted to a groundwater monitoring well. Revise either the text or the figure for consistency and to accurately reflect which boring will actually be converted into a groundwater monitoring well.

**Navy Response to EPA Specific Comment 2:** The fourth bullet under SWMU 9 Area A/B will be revised to indicate that soil boring 74SB585 will be converted to a groundwater monitoring well and not boring 74SB586. Similarly for Table 5, the reference to groundwater sample 74GW586 will be replaced by 74GW585.

**EPA Specific Comment 3: JP-5 Hill and DFM Area; Segment A – JP-5 Hill Tank Area, Page A-5:** *The first and third bullet points in this section state that no groundwater monitoring wells are proposed for the areas in question because subsurface impacts are shallow. Should the proposed soil samples indicated soil contamination at depths greater than those detected during Phase I activities, additional groundwater monitoring wells will likely be necessary.*

**Navy Response to EPA Specific Comment 3:** The Navy concurs that if the proposed soil samples indicate soil contamination at depths greater than those detected during Phase I activities, then additional groundwater monitoring wells will likely be necessary. The first and third bullets under JP-5 Hill and DFM Area, Segment A – JP-5 Hill Tank Area will be revised to include installation of monitoring wells and collection of groundwater samples.

**EPA Specific Comment 4: JP-5 Hill and DFM Area; Segment A – JP-5 Hill Tank Area, Page A-6:** *The first sentence in the last bullet of this section lists five existing monitoring wells (74VP9a/JP5, 74VP11a/JP5, 74VP11b/JP5, 74SB273 and 74SB285) that are to be sampled as part of the Phase II investigation. Figure 8, Phase II Proposed Sample Locations Segment A – JP-5 Hill Tank Area, indicates that six existing monitoring wells will be resampled as part of the Phase II investigation. 74SB139 is the only resampling location shown on Figure 8 that is not listed in the text. Revise either the text or the figure for consistency and to accurately reflect which groundwater monitoring wells will be resampled.*

**Navy Response to EPA Specific Comment 4:** Both the text and Figure 8 will be revised to indicate that well 74SB137 rather than 74SB139 will be resampled. The correct list of existing groundwater monitoring wells at the JP-5 Hill and DFM Area, Segment A – JP-5 Hill Tank Area slated for potential resampling includes: 74VP9a/JP5, 74VP11a/JP5, 74VP11b/JP5, 74SB137, 74SB273, and 74SB285.

**EPA Specific Comment 5: SWMU 9 Area C, Page A-7:** *The second sentence in the first bullet states that “two of the borings (74SB738 and 74SB739) will involve construction of groundwater monitoring wells.” For clarity, it is recommended the text be revised to state that “two of the borings will be converted to groundwater monitoring wells.”*

**Navy Response to EPA Specific Comment 5:** The second sentence in the third bullet of the referenced section will be revised to read as follows:

All four borings will be sampled for surface and subsurface soils, and two of the borings (74SB738 and 74SB739) will be converted to groundwater monitoring wells.