



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 2  
290 BROADWAY  
NEW YORK, NY 10007-1866

JUN 16 2010

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED

Mr. Mark E. Davidson  
US Navy  
BRAC PMO SE  
4130 Faber Place Drive  
Suite 202  
North Charleston, SC 29405

Re: Naval Activity Puerto Rico (NAPR), formerly Naval Station Roosevelt Roads,  
EPA I.D. Number PRD2170027203,

- 1) SWMUs 7 & 8 (Tow Way Fuel farm) - Corrective Measures Study Addendum – Revised Soil Remedy and Statement of Basis
- 2) AOC E (Pineros Island) – Phase I RFI Work Plan Addendum No. 1 – Terrestrial Intrusive Investigation Plan
- 3) SWMU 68 (Former Southern Fire Training Area) – Final Corrective Measures Implementation (CMI) Work Plan and Basis of Design and Technical Specifications
- 4) SWMU 78 (Pole Yard) – Draft Full RFI Work Plan

Dear Mr. Davidson:

This letter is addressed to you as the Navy's designated project coordinator pursuant to the January 29, 2007 RCRA Administrative Order on Consent ("the Consent Order") between the United States Environmental Protection Agency (EPA) and the U.S. Navy (the Navy).

EPA has completed its review of the above documents, and has the following comments:

SWMUs 7 & 8 (Tow Way Fuel farm) - Corrective Measures Study Addendum – Revised Soil Remedy and Statement of Basis

EPA has completed its review of the CMS Addendum and Statement of Basis which were submitted on behalf of the Navy by AGVIO/CH2M Hill's letter of March 10, 2010. Based on

additional characterization sampling for arsenic and several PAH compounds implemented by the Navy in 2009, the Addendum and Statement of Basis recommend a revised Final Remedy of No Further Action for the shallow soils (surface to two feet below ground surface) in three areas at these two SWMUs. As part of our review, EPA requested our consultant, TechLaw Inc., to review both documents for adequacy and acceptability. As discussed in the enclosed Technical Review, several items in both documents need to be addressed before the revised Final Remedy proposal can be considered acceptable for public review. In addition, since the proposed no further action remedy is based on "industrial standards", EPA requests that the revised CMS Addendum include a proposal for implementation of an institutional control to restrict future land use of the site to industrial usage.

Please also note that the Puerto Rico Environmental Quality Board (PREQB) in letters dated April 28 and 29, 2010 to me also recommend that an institutional control be required to restrict future land usage to industrial usage. Also, PREQB in its April 28 letter noted two items, including the contact person for PREQB, that need corrected in the Statement of Basis. Copies of both of PREQB's letters are enclosed.

Within seventy five (75) days of your receipt of this letter, please submit a revised Addendum and Statement of Basis (including a proposal for institutional controls) addressing the above EPA comments and those in the enclosed Technical Review (dated May 24, 2010), as well as those in the enclosed PREQB letters. Also as has been indicated previously to the Navy, the revised Final Remedy proposal will need to undergo public notice and review, pursuant to requirements of the Consent Order, before it can be fully approved by EPA.

AOC E (Pineros Island) – Phase I RFI Work Plan Addendum No. 1 – Terrestrial Intrusive Investigation Plan

EPA has completed its review of Addendum No. 1 to the Phase I RFI Work Plan, which was submitted on behalf of the Navy by Mr. Thomas Roth's (of CH2M Hill) letter of April 14, 2010. As part of that review, EPA requested our consultant, TechLaw Inc., to review the Addendum for acceptability in addressing EPA and TechLaw comments on the January 2010 draft version of Addendum No.1, which had been transmitted to you by my Email of February 23, 2010.

Based on our reviews, EPA has determined that the April 2010 revised Addendum No. 1 is acceptable. Since it is EPA's understanding that all field activities for Addendum No. 1 have now been implemented, within ninety (90) days of your receipt of this letter, please submit a draft Phase I RFI report covering all activities implemented pursuant to the Phase I RFI Work Plan, Revision 1, dated July 28, 2006, and Addendum No. 1 dated April 2010. The draft Phase I RFI report must include a recommendation as to whether additional RFI investigations and/or other actions are warranted.

SWMU 68 (Former Southern Fire Training Area) – Final Corrective Measures Implementation (CMI) Work Plan and Basis of Design and Technical Specifications

EPA has completed its review of the Responses to EPA's January 28, 2010 comments on the previous draft and the revised Final CMI Work Plan and the Basis of Design and Technical Specifications, all of which were submitted on behalf of the Navy by Rite Way Environmental Contractors' letter of May 14, 2010. As part of that review, EPA requested our consultant, TechLaw Inc., to review the Responses and Final CMI documents for acceptability in addressing EPA's and TechLaw's previous comments. Based on those reviews, EPA has determined that while the May 14 Responses acceptably address most of EPA's and TechLaw's comments, the CMI documents have not been fully revised to reflect those responses. The specific instances are discussed in the enclosed Technical Review (dated June 4, 2010).

In addition, while the Responses reference the 1995 Master Project Plans for NAPR (which include the Project Management Plan (PMP), Data Collection Quality Assurance Plan (DCQAP), Data Management Plan (DMP), and Health and Safety Plan (HASp)) for acceptable data requirements and error levels associated with the field and analytical portions of this CMI work plan, please note that the 1995 Master Plans often contain outdated information, and/or information that is not applicable to the proposed remedial actions at SWMU 68. Site-specific data quality objectives and updated data quality information should be cited or included in the Final CMI work plan. Therefore, please revise the Final CMI work plan to reference the specific sections of the 1995 Master Plan that are applicable for data quality objectives and data quality requirements for the SWMU 68 CMI, and/or where the cited sections of the 1995 Master Plan contain outdated information (e.g., old methods, outdated QC acceptance limits), revise the Final CMI work plan to include the most current recommended analytical methods, QC acceptance limits, etc..

Also, the Puerto Rico Environmental Quality Board (PREQB) in its letter dated June 2, 2010 to me had several comments on the May 14, 2010 Responses to their previous comments and noted several instances where the CMI documents have not been fully revised to reflect those responses. A copy of PREQB's June 2, 2010 letter is enclosed.

Within 60 days of your receipt of this letter, please submit an updated Final CMI Work Plan, which address the above comments and those in the enclosed Technical Review (dated June 4, 2010) and the enclosed PREQB letter of June 2, 2010. If changes are required in the Basis of Design and Technical Specifications, please also submit those updated documents at the same time.

SWMU 78 (Pole Yard) – Draft Full RFI Work Plan

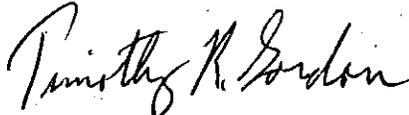
EPA has completed its review of the Draft Full RFI Work Plan submitted on behalf of the Navy by Baker Environmental's letter of April 29, 2010. As part of that review, EPA requested our consultant, TechLaw Inc., to review the draft Work Plan for acceptability. TechLaw's comments are given in the enclosed Technical Review (dated June 3, 2010). Based on that review and our own, EPA has determined that the draft Work Plan is not fully acceptable.

Also, the Puerto Rico Environmental Quality Board (PREQB) in its letter dated June 11, 2010 to me had several comments on the Draft Full RFI Work Plan. A copy of PREQB's letter is enclosed.

Within 60 days of your receipt of this letter, please submit a revised Full RFI Work Plan that addresses comments given in the enclosed Technical Review (dated June 3, 2010) and PREQB's June 11, 2010 letter.

If you have any questions, please telephone me at (212) 637- 4167.

Sincerely yours,



Timothy R. Gordon  
Project Coordinator  
Resource Conservation and Special Projects Section  
RCRA Programs Branch

Enclosures (7)

cc: Ms. Wilmarie Rivera, P.R. Environmental Quality Board, w/encls.  
Ms. Gloria Toro, P.R. Environmental Quality Board, w/encls.  
Mr. Mark Kimes, Baker Environmental, w/encls.  
Mr. Tom Beisel, AGVIO/CH2MHill, w/encls. # 1, 2, and 3 only.  
Ms. Cathy Dare, TechLaw Inc., w/o encls.  
Mr. Felix Lopez, USF&WS, w/o encls.

REPA4R2-002-ID-186

**TECHNICAL REVIEW OF THE  
CORRECTIVE MEASURES STUDY ADDENDUM  
SWMUS 7 AND 8 – REVISED SOIL REMEDY  
AND STATEMENT OF BASIS / PROPOSED FINAL SOIL REMEDY DECISION –  
SWMUS 7 AND 8, TOW WAY FUEL FARM AREA**

**NAVAL ACTIVITY PUERTO RICO  
CEIBA, PUERTO RICO  
EPA ID NO. PR2170027203**

**Submitted to:**

**U.S. Environmental Protection Agency  
Region 2  
290 Broadway  
New York, NY 10007-1866**

**Submitted by:**

**TechLaw, Inc.  
The Wannalancit Mills  
175 Cabot Street, Suite 415  
Lowell, MA 01845**

<b>EPA Task Order No.</b>	<b>002</b>
<b>Contract No.</b>	<b>EP-W-07-018</b>
<b>TechLaw TOM</b>	<b>Cathy Dare</b>
<b>Telephone No.</b>	<b>315-334-3140</b>
<b>EPA TOPO</b>	<b>Timothy Gordon</b>
<b>Telephone No.</b>	<b>212-637-4167</b>

**May 24, 2010**

**TECHNICAL REVIEW OF THE  
CORRECTIVE MEASURES STUDY ADDENDUM  
SWMUS 7 AND 8 – REVISED SOIL REMEDY  
TOW WAY FUEL FARM AREA**

**NAVAL ACTIVITY PUERTO RICO  
CEIBA, PUERTO RICO  
DATED MARCH 2010**

The following comments were generated based on a review of the *Corrective Measures Study Addendum SWMUs 7 and 8 – Revised Soil Remedy, Tow Way Fuel Farm Area*, Naval Activity Puerto Rico (NAPR), Ceiba, Puerto Rico, dated March 2010 (CMS Addendum).

**GENERAL COMMENTS**

1. Section 2.1 indicates that a grid spacing of 50 feet was used for the additional delineation sampling, based on the guidance document entitled: *Preparation of Soil sampling Protocols: Sampling Techniques and Strategies EPA 1992*. However, since EPA did not review the Sampling and Analysis Plan (SAP) and associated Work Plan for this sampling, it is not clear why grid spacing of 50 feet was selected. Revise the CMS Addendum to describe the process by which the 50-foot grid spacing was selected and explain why that spacing provides an accurate representation of the polycyclic aromatic hydrocarbon (PAH) and arsenic concentrations across SWMUs 7 and 8.
2. Samples were collected from the zero (0) to two (2) foot below ground surface (bgs) interval at the grid points as part of the additional delineation sampling. However, the CMS Addendum does not discuss the sampling interval for the previous samples collected. If the original samples were collected from the zero (0) to six (6) inch bgs interval, the recently-collected data may not be directly comparable to the original data (e.g., the zero (0) to six (6) inch interval may be highly contaminated, and the zero (0) to two (2) foot interval has been diluted with less contaminated soil in the six (6) to 24 inch interval). Revise the CMS Addendum to describe the sampling interval from which the original surface soil samples were collected. If the sampling intervals from the original surface soil samples and CMS Addendum are not similar, then ensure that the CMS includes a discussion on why the data is comparable.
3. Appendix A, Soil Laboratory Analytical Results, discusses qualifiers applied to the analytical results but does not provide the extent of the quality control (QC) exceedances which resulted in data qualification. For example, page 7 of Appendix A indicates that some samples were qualified as estimated “J” due to the biased low response reported for internal standard perylene-d12 during sample analysis. Without the extent of the QC exceedance, it cannot be verified if the data were qualified appropriately. Revise Appendix A to provide the extent of all QC exceedances. Alternatively, provide a copy of the support documentation package referenced in the Summary section on page 9 of Appendix A, if it contains the requested information.

## **SPECIFIC COMMENTS**

4. **Section 3.2, Arsenic, Page 3-2:** The fourth bullet on page 3-2 indicates shallow bedrock was excavated and spread over the site during tank construction. To clarify the arsenic concentrations in bedrock, revise the CMS Addendum to present any available arsenic data that indicates what the known range of arsenic concentration is in the bedrock that was spread across the site. In addition, revise the CMS Addendum to include a figure that illustrates the area over which the bedrock was spread in relation to Areas A, B, and C.
  
5. **Section 3.2, Arsenic, Page 3-2:** The discussion at the top of page 3-2 indicates a statistical evaluation was performed to determine if soil excavation was necessary. The fifth bullet on page 3-2 presents some of the results of the evaluation and refers the reader to Table 3-2, Data Summary for Areas A, B, and C at SWMU 7 and 8 which presents the results pertinent to Section 3.2. This presentation does not clearly describe the strength of the line of evidence utilized in the analysis. In addition, the CMS Addendum is not transparent in its presentation of this information. Revise the CMS Addendum to include an appendix presenting the analyses performed in generating the results detailed in Table 3-2.

**TECHNICAL REVIEW OF THE  
STATEMENT OF BASIS / PROPOSED FINAL SOIL REMEDY DECISION –  
SWMUS 7 AND 8, TOW WAY FUEL FARM AREA**

**NAVAL ACTIVITY PUERTO RICO  
CEIBA, PUERTO RICO  
DATED MARCH 2010**

The following comments were generated based on a review of the *Statement of Basis / Proposed Final Soil Remedy Decision – SWMUs 7 and 8, Tow Way Fuel Farm Area*, Naval Activity Puerto Rico (NAPR), Ceiba, Puerto Rico, dated March 2010 (Statement of Basis).

**GENERAL COMMENT**

1. The Field Investigation section does not state the objective of the sampling events performed in 2009. As written, it would not be apparent to a reader not familiar with the Corrective Measures Study (CMS) Addendum why the sampling event was conducted after the excavation remedy had been initially proposed. Revise the Field Investigation section to include a discussion of the objectives of the sampling performed in 2009.



COMMONWEALTH OF PUERTO RICO  
OFFICE OF THE GOVERNOR  
ENVIRONMENTAL QUALITY BOARD

ENVIRONMENTAL EMERGENCIES RESPONSE AREA

April 28, 2010

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

**Review of the Statement of Basis  
Proposed Final Soil Remedy Decision  
Solid Wastes Management Units (SWMUs) 7 & 8  
Tow Way Fuel Farm  
Naval Activity Puerto Rico (NAPR)  
Ceiba, Puerto Rico  
EPA ID No. PR2170027203**

Dear Mr. Gordon:

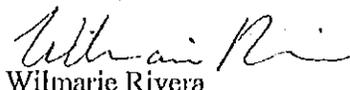
The Federal Facility Coordinator and the Hazardous Wastes Permits Division (HWPD) has finished the review of the above-mentioned document.

After a throughout revision the document was found to be largely complete and adequate. However there are a few corrections that should be made before making it final.

- Table 1 should be revise since on the Discussion of Results for Arsenic, the maximum observed concentration is presented to be 4.3 mg/kg and at the table is 3.4 mg/kg.
- The contact person to review the key documents at the Puerto Rico Environmental Quality Board should be amended to Wilmarie Rivera and the contact phone should be changed to 787-767-8181 extension 6141.

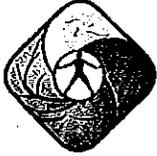
The Statement of Basis is recommending no further regarding the above mentioned compounds under the risk-exposure scenario considered during the establishment of the CAOs. It should be clearly noted that this decision will be based on the exposure scenario considered and this scenario should be considered a land use control for future use of the land that comprises the SWMUs 7 & 8. If you have any additional comment or question please feel free to contact Gloria M. Toro Agrait at (787) 767-8181 extension 3586 or myself at extension 6141.

Cordially,

  
Wilmarie Rivera

Federal Facilities Coordinator  
Environmental Emergencies Response Area

cc: Gloria M. Toro Agrait, Environmental Permits Officer



COMMONWEALTH OF PUERTO RICO  
OFFICE OF THE GOVERNOR  
ENVIRONMENTAL QUALITY BOARD



ENCL. #3

ENVIRONMENTAL EMERGENCIES RESPONSE AREA

April 29, 2010

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

**Corrective Measures Study Addendum  
Solid Wastes Management Units (SWMUs) 7 & 8  
Tow Way Fuel Farm  
Naval Activity Puerto Rico (NAPR)  
Ceiba, Puerto Rico  
EPA ID No. PR2170027203**

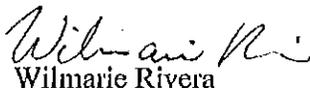
Dear Mr. Gordon:

The Federal Facility Coordinator and the Hazardous Wastes Permits Division (HWPD) has finished the review of the above-mentioned document.

After a throughout revision the document was found to be acceptable. EQB wants to highlight that no further action is being recommended based on Corrective Action Objectives (CAO) developed using an industrial classification risk-exposure scenario involving construction worker contact with surface and subsurface soil. It should be clearly noted that this no further action decision's basis should be considered a land use control for future use of the land that comprises the SWMUs 7 & 8.

If you have any additional comment or question please feel free to contact Gloria M. Toro Agrait at (787) 767-8181 extension 3586 or myself at extension 6141.

Cordially,



Wilmarie Rivera  
Federal Facilities Coordinator

cc: Gloria M. Toro Agrait, Environmental Permits Officer

**TECHNICAL REVIEW OF THE JANUARY 28, 2010  
RESPONSE TO COMMENTS ON THE  
DRAFT BASIS OF DESIGN REPORT FOR CORRECTIVE MEASURES  
IMPLEMENTATION – SWMU 68; TECHNICAL SPECIFICATION FOR  
CORRECTIVE MEASURES IMPLEMENTATION – SWMU 68; AND, DRAFT  
CORRECTIVE MEASURES IMPLEMENTATION WORK PLAN – SWMU 68**

**ALL DATED NOVEMBER 19, 2009**

**NAVAL ACTIVITY PUERTO RICO  
CEIBA, PUERTO RICO  
EPA ID NO. PR2170027203**

**Submitted to:**

**U.S. Environmental Protection Agency  
Region 2  
290 Broadway  
New York, NY 10007-1866**

**Submitted by:**

**TechLaw Inc.  
The Wannalancit Mills  
175 Cabot Street, Suite 415  
Lowell, MA 01854**

<b>EPA Task Order No.:</b>	<b>002</b>
<b>Contract No.:</b>	<b>EP-W-07-018</b>
<b>TechLaw TOM:</b>	<b>Cathy Dare</b>
<b>Telephone No.:</b>	<b>315-334-3140</b>
<b>EPA TOPO:</b>	<b>Timothy Gordon</b>
<b>Telephone No.:</b>	<b>212-637-4167</b>

**June 4, 2010**

**TECHNIAL REVIEW OF THE JANUARY 28, 2010  
RESPONSE TO COMMENTS ON THE  
DRAFT BASIS OF DESIGN REPORT FOR CORRECTIVE MEASURES  
IMPLEMENTATION – SWMU 68; TECHNICAL SPECIFICATION FOR  
CORRECTIVE MEASURES IMPLEMENTATION – SWMU 68; AND, DRAFT  
CORRECTIVE MEASURES IMPLEMENTATION WORK PLAN – SWMU 68**

**ALL DATED NOVEMBER 19, 2009**

**NAVAL ACTIVITY PUERTO RICO  
CEIBA, PUERTO RICO  
EPA ID NO. PR2170027203**

The following comments were generated based on an evaluation of the January 28, 2010 Response to Comments on the *Draft Basis of Design Report for Corrective Measures Implementation – SWMU 68*, Naval Activity Puerto Rico (NAPR), Ceiba, Puerto Rico, dated November 19, 2009 (Draft Basis), *Technical Specifications for Corrective Measures Implementation – SWMU 68*, NAPR, Ceiba, Puerto Rico, dated November 19, 2009 (Draft Specifications) and the *Draft Corrective Measures Implementation Work Plan – SWMU 68*, NAPR, Ceiba, Puerto Rico, dated November 19, 2009 (Draft CMI WP). All of the above documents are part of the Draft Corrective Measures Implementation Design Package and Work Plan for SWMU 68, dated November 19, 2009 (Draft CMI Design Package).

Most of NAPR's responses appear to address the comments and do not require further action; however, several responses require further action to address the comments. Only the responses that did not address the comments, or which require further action, are included below.

**GENERAL COMMENTS**

**Evaluation of the January 28, 2010 Response to General Comment 2:** The response addresses the comment. However, Section 2.4 (Remediation Levels) of the *Final Basis of Design Report for Corrective Measures Implementation – SWMU 68*, NAPR, Ceiba, Puerto Rico, dated May 14, 2010 (Final Basis) has not been revised to state that EPA approved the Final Corrective Measures Study Final Report – SWMU 68 on August 6, 2009. Revise Section 2.4 of the Final Basis to state that EPA approved the Final Corrective Measures Study Final Report – SWMU 68 on August 6, 2009.

**Evaluation of the January 28, 2010 Response to General Comment 4:** The response addresses the comment. However, a reference to Figure 3-1 (Confirmation Soil Sampling Points) has not been included in Section 3.2 (Description of the Proposed Removal Actions). Revise Section 3.2 to include a reference to Figure 3-1 for clarity.

**Evaluation of the January 28, 2010 Response to General Comment 7:** The response addresses the comment. However, roll-off boxes are still referenced in Section 3.8.1 (Waste Storage Areas) of Appendix C (Final Sampling and Analysis Plan – SWMU 68) of the *Final Corrective Measures Implementation Work Plan – SWMU 68, NAPR, Ceiba, Puerto Rico*, dated May 14, 2010 (Final CMI WP). Revise the Final CMI Design Package to replace all references to roll-off boxes with appropriate waste storage containers.

**Evaluation of the January 28, 2010 Response to General Comment 9:** The response addresses the comment. However, the information provided in the response has not been incorporated into Section 4.4 (Excavation Procedures) of the Final CMI WP. Revise Section 4.4 of the Final CMI WP and Section 3.2 (Soil Confirmation and Characterization Sampling) of Appendix C (Final Sampling and Analysis Plan – SWMU 68) of the Final CMI WP to include the information provided in the response.

**Evaluation of the January 28, 2010 Response to General Comment 10:** The response addresses the comment. However, Appendix A (Construction Schedule) of the Final Basis has not been updated to include the “Wetland Delineation,” “Field Stake Locations,” and “ROICC/NTR Field Stake Location Review” tasks. Revise Appendix A of the Final Basis to include the “Wetland Delineation,” “Field Stake Locations,” and “ROICC/NTR Field Stake Location Review” tasks. It should be noted that Appendix F (Project Schedule) of the Final CMI WP has been updated to include these three tasks.

**Evaluation of Response to General Comment 11:** The response partially addresses the comment. While the response references the Master Project Plans (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 (Baker, 1995)) for acceptable data requirements and error levels associated with the field and analytical portions of this Draft CMI WP, the Master Plans present outdated information and do not specifically apply to SWMU 68. Site-specific data quality objectives and updated data quality information need to be included in the Final CMI WP. Revise the Final CMI WP to reference the specific sections of the Master Plan that will be used. If sections contain outdated information (e.g., old methods, outdated QC acceptance limits) or are not applicable to this SWMU, ensure that the most recent information which supersedes the outdated or inapplicable information is included in the Final CMI WP.

Additionally, while it is understood that EPA will be notified of the laboratory chosen, laboratory specific information should still be included in the Sampling and Analysis Plan (SAP). For example, Table 3-2 of the SAP should include laboratory specific reporting limits. Revise the Final CMI WP to include laboratory specific reporting limits.

**Evaluation of the January 28, 2010 Response to General Comment 13:** The response addresses the comment. However, the confirmation sampling frequency (i.e., one sample for every 625 square feet (25 feet by 25 feet)) for the bottom of the excavation has not been included in Section 3.2.1 (SWMU 68) of Appendix C (Final Sampling and Analysis Plan – SWMU 68) of the Final CMI WP. Revise Section 3.2.1 of Appendix C of the Final

CMI WP to include the confirmation sampling frequency (i.e., one sample for every 625 square feet (25 feet by 25 feet)) for the bottom of the excavation.

**Evaluation of the January 28, 2010 Response to General Comment 16b:** The response addresses the comment. However, Section 2.1 (Backfill) of Section 02 61 13 of the Final *Technical Specifications for Corrective Measures Implementation – SWMU 68*, NAPR, Ceiba, Puerto Rico, dated May 14, 2010 (Final Specifications) has not been revised to clarify that backfill material shall be sampled at a frequency of one sample for every 3,000 cubic yards of potentially clean/borrow material. Revise Section 2.1 of Section 02 61 13 of the Final Specifications to clarify that backfill material shall be sampled at a frequency of one sample for every 3000 cubic yards of potentially clean/borrow material.

**Evaluation of Response Specific Comment 8:** The response addresses the comment. However, the response has not been incorporated into the text. Section 01 35 45.00 10, Part 1.5.5 states that 10 percent of the data will be validated using EPA 540/R 9 -008. However, the section should reference EPA 540-R-04-004. Revise the Final CMI WP to reference the correct guidance.

**Evaluation of Response to Specific Comment 15:** The response partially addresses the comment. While the response references the Master Project Plans (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 (Baker, 1995)) for information on data validation, the Master Plans present outdated information and do not specifically apply to SWMU 68. Neither the Final CMI WP nor the DCQAP describe in detail how precision, accuracy, representativeness, comparability, completeness, and sensitivity (PARCCS) criteria are calculated or will be incorporated into a future data usability report. Revise the Final CMI WP to include an appropriately detailed discussion of PARCCS criteria given that data collected is in support of a removal action and therefore represents the final verification step that the corrective measures have been implemented as int



COMMONWEALTH OF PUERTO RICO  
OFFICE OF THE GOVERNOR  
ENVIRONMENTAL QUALITY BOARD

ENCL. #5



LAND POLLUTION CONTROL AREA

June 2, 2010

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

**RE: REVIEW OF RESPONSE TO COMMENTS ON THE  
DRAFT CORRECTIVE MEASURES  
IMPLEMENTATION DESIGN PACKAGE AND  
WORK PLAN FOR SWMU.68 - FORMER  
SOUTHERN FIRE TRAINING AREA  
NAVAL ACTIVITY PUERTO RICO (NAPR), CEIBA  
EPA ID NO. PR2170027203**

Dear Mr. Gordon:

The Hazardous Wastes Permits Division (HWPD) of the Land Pollution Control Area and the Federal Facility Coordinator (FFC) has finished the review of the above-mentioned document.

This corrective action activity was scheduled as a commitment on the Fiscal Year 2010 Work Plan between the United States Environmental Protection Agency (USEPA) and the Puerto Rico Environmental Quality Board (PREQB).

The document was received as a result of EPA and EQB comments dated January 28, 2010. After a thorough review, responses were found adequate with some exceptions. Hence, EQB is issuing further discussion on the matter before considering it a final document. If you have any question or additional comment regarding this matter please contact Gloria M. Toro Agrait of my staff at 787-767-8181 extension 3586.

Cordially,

*María V. Rodríguez*

María V. Rodríguez Muñoz  
Manager  
Land Pollution Control Area

cc: Ariel Iglesias Portalatín, USEPA, CEPD  
Wilmarie Rivera, Federal Facilities Coordinator

Review of Responses to Comments on Draft Corrective Measures  
Implementation (CMI) Design Package and Work Plan for  
SWMU 68 - Former Southern Fire Training Area  
Naval Activity Puerto Rico, Ceiba  
PR2170027203

The majority of the responses to comments were found to be adequate. Following you will find the specific comments that need further revision.

SPECIFIC COMMENTS

Response to Comment Number 3:

The provided response is appropriate, but at the final document the Section 1.3 was not revised accordingly. Please, also include in the revised text, which section is related to sampling point 14E-01 and which is related to 14E-03.

Response to Comment Number 11:

Although response to comment is adequate and the clarification required in this comment is provided by the response to all the comments related to project personnel, for future documents please be as specific as possible and avoid relaying on information that "should be evident" as the response is claiming.

Response to Comment Number 15:

Please notice that the provided SOP lack of approval signatures.

Response to Comment Number 22:

Please provide in the text of the document appropriate reference to the agreements reached by the letter to EPA dated April 17, 2008.

Response to Comment Number 24:

PREQB respectfully disagrees with the statement that "confirmatory sampling of the pit bottoms is not necessary". Moreover, confirmatory sampling is proposed in the Basis of Design prepared and submitted within the data package. Also, a comment related the matter was issued by EPA. PREQB understand that the confirmatory sampling during soil

Response to Comments SWMU 68...

June 2, 2010

Page 2

removal as a selected corrective action is a recommended practice in order to provide evidence that the activity was successfully completed and no further action is required.

Response to Comment Number 25:

The areas being excavated have been thoroughly characterize for purposes of determining if they meet the Corrective Action Objectives (CAOs) established base on risk assessment for the site. The parameters to characterize a solid waste as hazardous, for disposal objectives, are different.

REPA4R2-002-ID-189

**TECHNICAL REVIEW OF THE  
DRAFT FULL RCRA FACILITY INVESTIGATION WORK PLAN  
SWMU 78- POLE YARD  
DATED APRIL 29, 2010**

**NAVAL ACTIVITY PUERTO RICO  
CEIBA, PUERTO RICO  
EPA ID NO. PR2170027203**

**Submitted to:**

**U.S. Environmental Protection Agency  
Region 2  
290 Broadway  
New York, NY 10007-1866**

**Submitted by:**

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<b>EPA Task Order No.</b>	<b>002</b>
<b>Contract No.</b>	<b>EP-W-07-018</b>
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**June 3, 2010**

**TECHNICAL REVIEW OF THE  
DRAFT FULL RCRA FACILITY INVESTIGATION WORK PLAN  
SWMU 78- POLE YARD  
DATED APRIL 29, 2010**

**NAVAL ACTIVITY PUERTO RICO  
CEIBA, PUERTO RICO  
EPA ID NO. PR2170027203**

The following comments were generated based on review of the April 29, 2010 *Draft Full RCRA Facility Investigation Work Plan for SWMU 78 – Pole Yard, Naval Activity Puerto Rico, Cieba, Puerto Rico* (Work Plan).

**GENERAL COMMENTS**

1. The Work Plan is lacking several elements required by *EPA Requirements of Quality Assurance Project Plans* (QA/R-5), dated March 2001. For example:
  - Laboratory specific information (e.g., laboratory specific standard operating procedures, reporting limits, quality control (QC) limits, analytical equipment maintenance, and calibration) has not been provided.
  - Quality control acceptance criteria have not been provided.
  - There is no discussion on how data will be verified or validated.
  - There is no discussion of how precision, accuracy, representativeness, comparability and completeness and sensitivity (PARCCS) measures will be incorporated into a usability report or if an evaluation of significant trends and biases will be included as part of a data quality assessment.
  - Examples of all forms and checklists to be used have not been provided (e.g., chain-of-custody forms, sample labels, audit checklists, data validation checklists).
  - There is no discussion of corrective action procedures.

Revise the Work Plan to provide the level of detail as discussed in QA/R-5.
2. The data quality objectives (DQOs) presented in the Work Plan is insufficiently detailed. For example, decision rules and boundaries of the study have not been defined. The seven-step DQO process described in EPA's *Guidance on Systematic Planning Using the Data Quality Objectives Process* (QA/G-4), dated February 2006, should be provided. Revise the Work Plan to provide more detailed DQOs.
3. It is unclear why samples will not be analyzed for polychlorinated biphenyls (PCBs). Section 1.2 states that constituents associated with transformer dielectric fluid, including total recoverable petroleum hydrocarbons and PCBs were thought likely to be the potential chemicals of concern. Additionally, Section 2.2.3 stated that nine of the 110 transformers contained detectable levels of PCBs ranging from 1.5 mg/kg to 17 mg/kg. Revise the Work Plan to include analysis of PCBs. In the alternative, provide the rationale for excluding this analytical group.

4. The proposed sample locations and analyses do not sufficiently delineate possible contamination at SWMU 78. For example:

- No samples are proposed around sample 78SB01 even though concentrations of Polycyclic Aromatic Hydrocarbons (PAHs), TPH DRO, and certain metals were above action levels in the surface samples and concentrations of Total Petroleum Hydrocarbons Diesel Range Organics (TPH DRO) and certain metals were above action levels in the subsurface samples. Sample 78SB01 is also near the area of suspected release. Revise the Work Plan to include additional surface and subsurface sample locations near 78SB01 for PAH, TPH DRO, and metals analysis. No samples are proposed around sample 78SB05 even though certain metals were above action levels in the surface and subsurface samples. Revise the Work Plan to include additional surface and subsurface sample locations near 78SB05 to be analyzed for metals.
- It is unclear why metals analysis is not proposed at all locations for all surface and subsurface samples when one or more metals were above one or more action levels for all samples analyzed during Phase I.

Revise the Work Plan to collect surface and subsurface samples at all sample locations and include analysis of metals for all samples.

5. There appears to be a discrepancy in the number of groundwater samples proposed between Figure 3-1 and Section 3.1. According to Section 3.1, page 3-3, if groundwater is encountered then up to three permanent monitoring wells will be installed and a groundwater sample will be collected from each well. However, Figure 3-1 shows 17 locations as being proposed for surface, subsurface soil, and groundwater sampling. Revise the Work Plan to clarify the number of groundwater samples to be collected.
6. Although discussed in Section 4.6 of the Work Plan, human health screening values (i.e., Regional Screening Levels (RSLs), federal drinking water maximum contaminant limits (MCLs)) and background screening values have not been presented in the Work Plan. Only ecological screening levels were presented. Verification that the laboratory reporting limits will be able to meet screening level values cannot be performed without a presentation of all of the screening values to be used. Additionally, ecological screening levels have not been provided for Total Petroleum Hydrocarbons (TPH). Revise the Work Plan to provide all screening criteria to allow for comparison to analytical results.
7. It is unclear if the background screening values are calculated from results that include areas of contamination. In order to represent true background, on-site concentrations that are statistically elevated (e.g., due to contamination) should be removed from the background calculations. Revise the Work Plan to clarify if contaminated areas are included in the calculation of background screening levels.
8. The Work Plan references outdated SW-846 analytical methods (e.g., 6020, 6010B, 8270C, 8015B); newer versions of the methods (6020A, 6010C, 8270D, 8015C) are available. Revise the Work Plan to reference the most updated analytical methods.

9. The Work Plan does not specify that exceedances of human health and/or ecological risk-based screening criteria warrant the need for a Human Health Risk Assessment (HHRA) and/or Ecological Risk Assessment (ERA) if complete exposure pathways exist. Clarify that exceedances of risk-based screening criteria warrant a HHRA and/or ERA. In the alternative, provide the decision criteria that will be used to prompt a HHRA or ERA.
10. Consistent with EPA guidance and following agreements with the Navy, inorganics that exceed human health risk-based screening criteria cannot be eliminated from the quantification of risk and hazard regardless of background concentrations. Specifically, the EPA raised this issue in a comment letter dated January 23, 2009 on the Draft Final Correctives Measure Study for Solid Waste Management Unit (SWMU) 68. The Navy responses to the EPA comment letter, dated June 12, 2009, stated that chemicals detected above risk-based screening criteria will be retained as Chemicals of Potential Concern (COPCs) and assessed under total baseline conditions. The Navy's responses further stated that those chemicals at or below background levels (non-site related) will be discussed as part of the risk characterization and then exit the risk assessment process. This approach is consistent with U.S. Navy Human Health Risk Assessment Guidance (available at <http://www-nmcphc.med.navy.mil/downloads/ep/Chapters%201-12.pdf>). Note that this approach appears to be acceptable based EPA's approval letter dated August 6, 2009 on the Final Correctives Measure Study for SWMU 68 (Baker, 2009b).

Ensure that the Work Plan is revised so as to be consistent with these previous agreements to ensure consistency among all HHRA's performed at NAPR SWMUs and compliance with EPA-recommended risk assessment methodologies. HHRA's conducted for NAPR SWMUs should quantify risk and hazard for any and/or all inorganic compounds that exceed residential or industrial health-based screening criteria. Further, the uncertainty analysis, presented as part of the risk characterization, should include a refinement of risk. This refined risk evaluation should present a breakdown of the total risk as site-related risk and background risk. This will provide the basis for exiting such inorganic COPCs from the HHRA process (i.e., show that such inorganic COPCs should exit at the end of Tier 2, Baseline HHRA, and not continue to the Tier 3 process, risk assessment for selection of remedial alternatives).

With respect to ecological risk assessments, the Navy's approach is generally consistent with EPA guidance because inorganic compounds are not excluded based on background in Step 2 (Tier 1) of the Navy's ERA process, and Step 3.a (Tier 2) does include a refinement of risk based on statistical background comparisons (much like the refinement of risk conducted as part of the HHRA uncertainty analysis).

11. The Work Plan does not discuss the potential biota at SWMU 78 that could be exposed to contaminants in soil or groundwater. Revise the Work Plan to specify that biota at or hydrologically downgradient from SWMU 78 will be discussed in the subsequent RFI Report.
12. The Work Plan does not summarize the approach and methodology to be used in any subsequent HHRA and/or ERA (should they be warranted). For completeness, the Work Plan should, at a minimum:

- Provide a Conceptual Site Model (CSM) for human and ecological receptors (i.e., show sources, potentially complete exposure pathways, and receptors).
- Provide a brief discussion of exposure assumptions.
- Clarify how COPCs will be identified.
- Summarize standard EPA and/or Navy risk assessment approaches (as appropriate).
- Reference risk assessment guidance documents.

Revise the Work Plan to include more details on how human health and ecological risk and hazards will be quantitatively evaluated, should it be warranted by the analytical data screening.

13. Maximum Contaminant Levels (MCLs) will be used to screen groundwater data; however, MCLs are not solely risk-based. Groundwater exceedances of risk-based screening criteria warrant an HHRA unless land use controls (LUCs) and/or institutional controls (ICs) are in place at SWMU 78 to prevent consumption of groundwater (e.g., residential development). If a HHRA is warranted, again, note that the identification of groundwater COPCs should be selected based on the Tap Water Regional Screening Level (RSL) and not the MCL.
14. The Work Plan indicates that "background screening values" will be used to evaluate analytical results relating to both human and ecological receptors. Note that for the purposes of risk assessment, inorganic compounds above risk-based criteria should not be eliminated on the basis of background, even though statistical comparisons to background may be included to better understand site-related contamination. With respect to the HHRA, all inorganic compounds above risk-based screening levels should be evaluated quantitatively in the HHRA. Then, as part of the uncertainty analysis, the Navy may present a refinement of the total risk and hazard by providing a breakdown of risks attributable to site-related contamination and risks attributable to background levels. Regarding the ERA, ecological risks are evaluated much the same way (i.e., Step 2 of the Navy ecological risk assessment guidance does not eliminate inorganic compounds based on background but presents the calculation of hazard and the hazard estimates for all identified COPCs, whereas Step 3a presents a refinement of hazard). Clarify these approaches in the Work Plan.

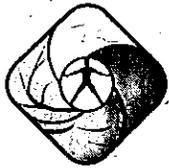
## SPECIFIC COMMENTS

1. **Section 2.2.2, Phase I RFI, Page 2-2:** This section does not discuss Phase I PCB results. The third bullet states that PCBs were included as part of the analysis for the Phase I RFI Investigation. However, the results of PCB analysis were not discussed in the section. Revise the Work Plan to discuss the PCB results.
2. **Section 3.1, Soil Sampling and Analysis Program, 2<sup>nd</sup> paragraph, p. 3-1:** This paragraph states that the soil samples will be analyzed for PAHs, TPH DRO and metals. PCBs, which were identified in nine of the 110 transformers stored on the concrete curbed pad at Solid Waste Management Unit (SWMU) 78 (see Section 2.2.3, p. 2-3), are excluded. PCBs should not be removed from the Phase II soil analysis program unless the soil data collected under the Phase I RFI show that PCBs are not a problem (note that Section 2.2.2 summarizes the

Phase I RFI results, which included PCB analyses, but does not discuss the actual PCB data). Justify in Section 3.1 why PCBs are excluded from the analysis program.

3. **Section 3.2, Monitoring Well Installation Program, Page 3-4:** There is discrepancy between the estimated depth to ground water (80 to 100 feet below ground surface (bgs)) and the proposed depth of these borings (apparently 8 to 12 feet bgs). If perched water is suspected, this should be discussed in the text. Otherwise, if groundwater data is needed, then the three well locations should be selected and drilled to a depth appropriate for encountering groundwater. Revise the Work Plan to discuss perched groundwater or to recommend three monitoring well locations that will be completed to a depth appropriate to encounter groundwater. Alternatively, explain why groundwater samples are not necessary.
4. **Section 3.4, Quality Assurance/Quality Control Samples, Page 3-6:** This section states the *Final RCRA Facility Investigation Management Plans* (Management Plans), dated 1995, will be used as guidance for the sampling and analysis plan. However, the Management Plans contain outdated information. For example, the quality control acceptance criteria limits are based on outdated or no longer existing SW-846 methods. Revise the Work Plan to provide updated analytical methods and QC acceptance criteria.
5. **Section 3.5.3, Investigation Derived Waste Management, Page 3-8:** It is not clear if investigation derived waste (IDW) will be combined from multiple wells into one 55-gallon drums or if each well will have its own drum. It would not be possible to replace the soil cuttings into the boring from which they came if the soil cuttings are combined from multiple borings into one 55-gallon drum. Revise the Work Plan to clarify this information.
6. **Section 3.5.7, Chain-of-Custody, Page 3-9:** This section states that chain-of-custody procedures will be followed. However, these procedures have not been provided in the Work Plan. Revise this section to provide the chain-of-custody procedures to be followed.
7. **Section 4.0, Reporting, Pages 4-1 through 4-7:** This section does not indicate that a data usability or data assessment report will be included in the final report. Revise this section to include a data usability or data assessment report and describe what will be included in this report.
8. **Section 4.7, Conclusions and Recommendations, Page 4-7:** This section states that information from the physical and analytical results will be synthesized into conclusions regarding site conditions. However, this section does not describe how data usability will impact the conclusions and recommendations. Revise the section to address this issue.
9. **Section 4.7, Conclusions and Recommendations, Page 4-7:** This section states that data obtained during the field effort will be incorporated into the web based Geographic Information System (GIS) currently residing on the NAPR project team web site. However, it is unclear if the database is compared to the hard copy data to ensure its accuracy. Also, it is unclear if validation qualifiers will be entered into the database to ensure qualifications are considered when using the database (i.e., especially if data are rejected during validation). Revise the Work Plan to discuss how the accuracy of the database is ensured and to clarify if the validation qualifiers are entered in the database.

10. **Section 6.1, Project Team Responsibilities, Page 6-1:** This section does not provide the responsibilities of all the project team members (e.g., laboratory chemist, data validator, etc.). Revise the Section to provide a list of all the members of the project as well as their responsibilities.
11. **Table 3-3, Method Performance Limit:** This table contains analytes that have reporting limits (RL) above ecological screening levels, but have not been shaded as indicated in the key (e.g., benzo(a)anthracene, copper, and nickel). Additionally, it is not specified how results below the reporting limit for samples with screening levels below the RL will be qualified. Finally, it is unclear if the laboratory chosen will be able to meet the reporting limits presented in the table. Revise the Work Plan to present the laboratory specific reporting limits, indicate which analytes have screening levels below the reporting limit and clarify how results will be qualified if below the reporting limit.
12. **Table 4.1, Ecological Soil Screening Values:** The notes and the "table references" include more acronyms and references than are actually detailed in Table 4.1. Revisit and simplify this table accordingly.
13. **Table 4.2, Ecological Groundwater Screening Values:** Table 4.2 provides ecological "groundwater" screening values, which represent conservative surface water screening benchmarks. The work plan should be revised to clarify how these values will be applied to screen the groundwater analytical data, considering that (a) groundwater at SWMU 78 is expected to be >100 ft deep (see Section 2.1, p. 2-1), and (b) the closest aquatic habitat is the bay (located about 2,000 ft south west of SWMU 78 (see Figure 1-2)). Provide clarifications accordingly.



COMMONWEALTH OF PUERTO RICO  
OFFICE OF THE GOVERNOR  
ENVIRONMENTAL QUALITY BOARD

ENCL. #7

VERDE /

ENVIRONMENTAL EMERGENCIES RESPONSE AREA

June 11, 2010

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

**Technical Review of the Draft Full RCRA  
Facility Investigation Work Plan for SWMU 78 - Pole Yard  
Naval Activity Puerto Rico (NAPR)  
Ceiba, Puerto Rico  
EPA ID No. PR2170027203**

Dear Mr. Gordon:

The Hazardous Wastes Permits Division (HWPD) and the Federal Facility Coordinator has finished the review of the above-mentioned document.

We have just notice that by an involuntary error, some comments were omitted on the comment's sets send in the letter dated June 9, 2010. We hereby request that you replace the before received set of comment with this one.

Enclosed please find PREQB's the comments issued as part of the technical review. If you have any additional comment or question please feel free to contact Gloria M. Toro Agrait at (787) 767-8181 extension 3586 or myself at extension 6141.

Cordially,

Wilmarie Rivera  
Federal Facilities Coordinator  
Environmental Emergencies Response Area

cc: Gloria M. Toro Agrait, Environmental Permits Officer

**Technical Review of the Draft Full RCRA Facility Investigation Work Plan for  
SWMU 78, Naval Activity Puerto Rico, Ceiba, Puerto Rico**

**I. PAGE-SPECIFIC COMMENTS**

1. Page 3-1, Section 3.1.
  - a. The last sentence of the first paragraph states "...Groundwater samples (up to three samples) will be collected if a saturated zone is encountered during soil boring advancement..." However, Figure 3-1 shows that a significant number of groundwater samples are proposed. Please clarify.
  - b. Please include a discussion of groundwater flow direction and indicate this information on Figure 3-1.
  - c. Please consider the inclusion of soil borings to the west of 78SB05 to allow for the collection of surface and subsurface soil samples based on the presence of metals at concentrations that exceed one or more of the screening values (as presented in the data tables included as Appendix B).
  
2. Page 3-3, Section 3.1, Paragraph 3. The text states that surface and subsurface soil samples may be analyzed for TPH GRO. However, none of the subsequent sections on sample rationale or the subsequent sample summary table (Table 3-1) shows TPH GRO as a potential analysis. Please clarify if TPH GRO is planned for at any sample locations and update the Work Plan accordingly. This also will affect Tables 3-2 and 3-2.
  
3. Page 3-5, Section 3.3, Paragraph 1. The text states that groundwater samples will be analyzed for TPH GRO. However, the subsequent sample summary table (Table 3-1) does not show TPH GRO as a potential analysis. Please clarify if TPH GRO is planned for at any sample locations and update the Work Plan accordingly. This also will affect Tables 3-2 and 3-2.
  
4. Page 3-6, Section 3.4.1, Paragraph 1. If it is determined that TPH GRO will not be included as part of the analyte list associated with ground water sampling (if ground water is encountered), please remove the references to submittal of trip blanks from the text and Table 3-2.
  
5. Page 3-7, Section 3.4.2 and Table 3-2. The text states that polyethylene tubing will be used during the collection of groundwater samples. However, as per the Region 2 low flow groundwater sampling SOP included in Appendix C of this Work Plan, Teflon or Teflon-lined polyethylene tubing must be used to collect groundwater samples for organic analyses. Polyethylene tubing would be appropriate for inorganic analyses only. Since organic analyses are planned for at each groundwater monitoring well, please use Teflon or Teflon-lined polyethylene tubing.
  
6. Page 3-8, Section 3.5.3, Paragraph 1. Please clarify the handling of soil IDW. The work plan indicates that soil cuttings associated with subsurface soil sampling will be

stored temporarily in 55-gallon drums and will be placed back in the borings unless contamination is present. Please clarify if there will be a drum dedicated to the soil derived from each boring location to prevent co-mingling of soils from multiple borings.

7. Table 3-3.

- a. Please include the preparation methods being used for PAHs in soil and groundwater samples
- b. Please include the preparation methods being used for TPH DRO in soil and groundwater samples.
- c. Please include the preparation methods being used for metals in soil and groundwater samples.
- d. The quantitation limits (QLs) listed for metals in aqueous samples appear very high and more appropriate for analysis via 6010C instead of 6020A. Please verify these QLs with the laboratory and/or procure a laboratory that is capable of reporting lower QLs. Most of the listed QLs appear to be high by about one order of magnitude compared to QLs typically reported by method 6020A. It is important to note that many of the aqueous metals QLs exceed the risk screening levels (ecological groundwater screening levels presented in Table 4-2 as well as the May 2010 EPA Regional Screening Levels [RSLs]) and therefore lower QLs are needed in order to achieve project objectives. Specific exceedances of risk screening levels are as follows:
  - i. Antimony QL (20) > EPA Tap water RSL (1.5)
  - ii. Arsenic QL (10) > EPA Tap water RSL (0.045)
  - iii. Cadmium QL (5) > EPA Tap Water RSL (1.8)
  - iv. Chromium QL (10) > EPA Tap Water RSL (0.043)
  - v. Cobalt QL (10) > EPA Tap Water RSL (1.1)
  - vi. Vanadium QL (10) > EPA Tap Water RSL (0.26)
  - vii. Copper QL (20) > ecological groundwater screening levels (3.73)
  - viii. Nickel QL (4) > ecological groundwater screening levels (8.28)
  - ix. Silver QL (10) > ecological groundwater screening levels (0.23)
  - x. Benzo(a)anthracene QL (0.2) > ecological groundwater screening levels (0.025)

8. Page 4-5, Section 4.6.2.

- a. Please clarify what concentration will be used for comparison to screening criteria for each chemical.
- b. Please clarify whether a baseline risk assessment will be conducted if chemicals exceed the screening criteria.

9. Figure 4.1.

- a. Please include an evaluation of outliers in the data sets in Step One. Both the slippage and quantile tests are sensitive to high-end outliers. A single high value can cause the site distribution to seem to be statistically different from the background when in actuality the high value can be indicative of a "hot spot" and not the entire site being different from the background.

- b. The two-sample test for proportion has a normal approximation assumption that does not make it into the decision making process depicted in the flow chart. Please revise the figure accordingly.

## II. MINOR EDITORIAL COMMENTS

1. Page 2-1, Section 2, Paragraph 1. Please change the word “exists” to “exist” in the first sentence.
2. Page 2-3, Section 2.2.2. Please verify the date that USEPA approved the Phase I RFI report (the text states August 11, 2010).
3. Page 3-1, Section 3.1, Paragraph 3. Please insert the word “and” between the words “collected” and “will” in the third sentence.
4. Page 3-1, Section 3.1, Paragraph 6 (first bullet). Please change “benzo(a)anthracene” to “benzo(a)pyrene”. The data presented in Appendix B do not indicate a benzo(a)anthracene detection in soil sample 78SB03.
5. Page 3-2, Section 3.1, Paragraph 1 (continuation of first bullet). As there were two subsurface soil samples collected from the 78SB03 boring, please specify in the text that cobalt was detected above the human health and background screening value in the three to five-foot interval.
6. Page 3-3, Section 3-1, Paragraph 5. Please add the words “for subsurface soil samples” for clarification at the end of the third sentence in this paragraph.
7. Page 3-4, Section 3.2, Paragraph 1. Please replace the word “for” with “at” in the first sentence.
8. Page 3-8, Section 3.5.3, Paragraph 1. Please insert a space in between the first and second paragraph of this section.
9. Page 4-1, Section 4.2, Paragraph 1. Please change the wording of the second sentence to read, “This section will include a summary.....”.
10. Table 3-3. Please remove the note related to shaded values, as it is not applicable to this table.
11. Table 4-1. Please change the reference in notes 5 and 6 associated with this table from SWMU 56 to SWMU 78.
12. General. Please clarify whether the site is considered to be located off of Gilbert Island Street or Hollandia Street – the text references both and the figures are not clear as to how far Hollandia Street extends.