



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 2
290 BROADWAY
NEW YORK, NY 10007-1866

DEC 22 2011

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) SWMU 1 (Army Cremator Disposal Site) – On-Site Construction Support for Debris Removal Report, dated November 2011
- 2) SWMU 57 (POL Drum Storage Area) – Final Phase I RFI Report, dated December 6, 2011

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).

SWMU 1– On-Site Construction Support for Debris Removal Report

EPA has completed its review of the draft On-Site Construction Support for Debris Removal Report (the Report), submitted by Ms. Linda Klink's (of Tetra Tech) letter of November 14, 2011, on behalf of the Navy. As part of that review EPA requested that our consultant, TechLaw Inc, also review the Report. TechLaw's comments are given in the enclosed Technical Review, dated December 14, 2011 (Enclosure #1).

Based on those reviews, EPA agrees with this report's conclusions and recommendations as stated in Sections 1.4 and 1.5 of the Report, that the clearance of munitions and explosives of concern (MEC) from the debris piles does not confirm that all of the potential MEC hazards have been addressed at the site, and recommends further investigations for MEC in both the surface and subsurface. In addition, the potential for munitions constituents (MC) to be present in the surface and subsurface soils needs to be investigated. Additional fieldwork should be considered to address these issues.

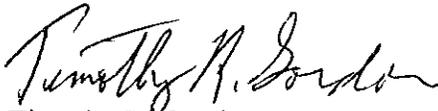
While there are some relatively minor issues that need addressed, as discussed in Enclosure #1, EPA will conditionally approve the Report, subject to the Navy submitting, within 45 days of your receipt of this letter, an Addendum to the Report that addresses the issues discussed in Enclosure #1.

SWMU 57 (POL Drum Storage Area) – Final Phase I RFI Report

EPA has completed its review of the Final Phase I RFI Report (the Phase I RFI Report), submitted by Mr. Mark Kimes' (of Michael Baker Inc.) letter of December 6, 2011, on behalf of the Navy. The Phase I RFI Report was revised to address comments given with EPA's letter of March 11, 2011. Based on our review, EPA has determined that the December 2011 Phase IRFI Report is now complete and acceptable.

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

Sincerely yours,



Timothy R. Gordon
Project Coordinator
Corrective Action and Special Projects Section
RCRA Programs Branch

Enclosure

- cc: Ms. Wilmarie Rivera, P.R. Environmental Quality Board, w/encl.
Ms. Gloria Toro, P.R. Environmental Quality Board, w/encl.
Mr. Mark Kimes, Baker Environmental, w/encl.
Mr. Stacin Martin, US Navy, w/encl.
Ms. Linda Klink, Tetra Tech, w/encl.
Ms. Cathy Dare, TechLaw Inc, w/encl.
Mr. Felix Lopez, USF&WS, w/o Encl.

**TECHNICAL REVIEW OF THE
DRAFT REPORT FOR ON-SITE CONSTRUCTION SUPPORT FOR
DEBRIS REMOVAL SWMU 1 – FORMER ARMY CREMATOR DISPOSAL SITE
DATED NOVEMBER 2011**

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

Submitted to:

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

Submitted by:

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EPA Task Order No.	002
Contract No.	EP-W-07-018
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December 14, 2011

**TECHNICAL REVIEW OF THE
DRAFT REPORT FOR ON-SITE CONSTRUCTION SUPPORT FOR
DEBRIS REMOVAL SWMU 1 – FORMER ARMY CREMATOR DISPOSAL SITE
DATED NOVEMBER 2011**

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

The following comments were generated based on review of the November 2011 *Draft Report for On-Site Construction Support for Debris Removal SWMU 1 – Former Army Cremator Disposal Site, Naval Activity Puerto Rico, Ceiba, Puerto Rico* (Report).

GENERAL COMMENTS

1. The EPA comments to the SWMU 1 On Site Construction Sampling and Analysis Plan (SAP), dated 3/31/11, noted in General Comment 2 that any burial trenches and pits should be identified with Global Positioning System (GPS) coordinates. This was agreed to in the Navy responses. However, several statements made in this Report noted that subsurface anomalies exist on the site, although no coordinates for these anomalies were provided. Understanding that no obvious trenches or pits were recognized, it would, however, be advantageous to include the location of the detected anomalies in the subsequent version of this Report.
2. The ordnance nomenclature format varies throughout this document. This results in some uncertainty as to exactly which munition is being discussed or reported. Refer to the Army TM 43-0001-xx series publications (Army Ammunition Data Sheets) and U.S. Naval Sea Systems Command (NAVSEA) OP 5 Volume 1 (Ammunition and Explosives Safety Ashore) for correct formatting information. Also, note the following concerning the use of the noted terms:

Mark: This is primarily a U.S. Navy designation, and is often abbreviated Mk and used with a numeral to a standardized item, as in “Fuze, Mk 173 Mod 1,” where the “Mod” indicates the modification series of the item (note the spaces in the format for the designation). Mark was also used on some British ordnance and at one time used by the U.S. Army. The Army usually used the abbreviation “Mk.” and Roman Numerals (i.e., “Mk. XXI”). It should be noted that the Army added a period after the “Mk” in their terminology and included the noted space.

M: This term indicates the model number of a standard item and is written “M14” with no spaces or dashes involved.

A: This term, when appended to an “M” number, (e.g., “M18A1”), designates an accepted modification of a standardized item. The number following the “A” indicates the series of the modification. Again, no spaces or dashes are involved.

Cases: This term, as used in the Report, should be changed to the term “cartridge cases.”

Revise the Report to make the appropriate global corrections in the report to ensure consistently correct ordnance nomenclature.

SPECIFIC COMMENTS

- 1. Section 1.2 Items Found During Excavation, page 1-2:** The paragraph listing Material Documented as Safe (MDAS) lists a Firebomb – Mk07 that appears to be listed in Table 2 as a Firebomb Mk 77. The correct nomenclature is likely either “Bomb, Fire, 500-LB, Mk 77 Mod (unknown)” or “Bomb, Fire, 750-lb, Mk 77 Mod (unknown).” Also, it appears that this item is listed as a practice bomb in Section 8.1.1, SWMU 1-Debris Piles Investigation. Review all of the items listed in the report as “Mk 77” and correct their identity/nomenclature as necessary.
- 2. Section 1.2 Items Found During Excavation, page 1-3:** The last paragraph notes that twenty-five roll-off boxes were removed from SWMU 1. However, the size of the roll-offs is not mentioned. Revise the Report to describe either the cubic yards or weight of the debris removed.
- 3. Section 1.3 MEC/MPPEH Clearance Operations, page 1.3:** The statement is made here that, “...surplus donor explosives were consumed the day they arrived in a final cleanup shot.” This statement is somewhat confusing and might better express the intent if it were reworded to read, “...surplus donor explosives were consumed on the day they were delivered in the final shot of the day.” Revise the Report to make this change.
- 4. Section 5.1.2.2 Explosives Acquisition and Management, page 5-6:** The Report has no listing of the donor explosives used or a copy of the Army DA Form 581 listing the donor explosives. The last sentence in the section states only detonation cord and the explosive Non-El. Non-El is an initiating line (shown in photograph 325) to an explosive main charge of Helix binary explosives (photograph 320) that is not listed. Revise the Report to include a detailed list of donor explosives used. Also, the following statement that “No consolidated shots occurred” appears to be in error, as the eight MEC items recovered were consolidated for this explosive demolition event, which is recorded in Appendix A, MEC Field Forms, as having occurred on May 13. In addition, Section 5.1.2.2 notes that, “All donor charges were consumed in a cleanup shot performed on May 16, 2011.” However, the Daily MEC Activity Logs for May 13 and May 16 indicate that the final demolition shot was on May 13, and no operations involving donor charges occurred on May 16. Review the cited verbiage and correct it as needed to ensure consistency.
- 5. Section 8.1.1 SWMU 1 – Debris Piles Investigation, page 8-1:** The first paragraph states that the material documented as safe (MDAS) “...primarily consisted of parts of spent or fired rockets and practice bombs...” It would be better understood if this were changed to read, “...primarily consisted of parts of rockets and practice bombs that had functioned completely as designed and contained no detectable energetic residue...” Revise the Report to make this change.

6. **Appendix C Color Photographs of Activities and Recovered MEC, pages C-5.2, C-7.9, C-9.5, C-9.7, C-9.8, and C-9.10:** The following discrepancies in the munitions identification in the listed photographs were noted:

PAGE C-5.2

- Photo 21-D-002: Item is labeled "Practice bomb M124." It appears to be a cartridge case.
- Photo 23-D-004: Item is labeled "Cartridge Casing, 3", empty." It appears to be a practice bomb.
- Photo 24-D-005: Item is labeled as "Practice bomb Mk76." It appears to be a Grenade, Rifle, Practice, M29.

PAGE C-7.9

- Photo 196-F-044: Item is labeled as "Rocket Pod Mk40 Mod0." It appears to be a practice bomb of undeterminable size.
- Photo 197-F-045: Item is labeled as "Rocket Pod Mk40 Mod0." It appears to be a practice bomb of undeterminable size.

PAGE C-9.5

- Photo 309-I-007: The two items in the photo are labeled as "Fuze, Variable Time MK72-8 with booster cup and a closer look at the MEC Variable Time fuze." It appears that the item that is supposed to be the MEC Variable Time fuze is actually the tail assembly of a 3.5" rocket motor.

PAGE C-9.7

- Photo 313: Item is labeled as "A closer look at the MEC unfired 3.5" rocket motor from debris pile "I". It is unclear what the item is, but it is not a component of a 3.5" rocket.

PAGE C-9.8

- Photos 201-I-001, 204-I-004 and 205-I-005: Items are all labeled as "Rocket Motor 2.75" FFAR." It is unclear what the items are, but the fin assemblies do not appear to be those of a 2.75" Folding Fin Aircraft Rocket (FFAR).

PAGE C-9.10

- Photos 214-I-014 and 215-I-015: Items are both labeled as "Rocket Motor 2.75" FFAR." It is unclear what the items are, but the fin assemblies do not appear to be those of a 2.75" FFAR.

Review the listed photographs and revise them as necessary to include the correct identity of the munitions involved.