COMMONWEALTH OF PUERTO RICO
Office of the Governor
Environmental Quality Board
Environmental Emergencies Response Area

November 24, 2009

Mr. Kevin Cloe, P.E.
Remedial Project Manager
Commander Atlantic Division
Naval Facilities Engineering Command
6506 Hampton Boulevard
Norfolk, VA 23508-1278

RE: Draft Final Completion Report, Removal Action SWMU 6, SWMU 7, AOC J and AOC R, Former Naval Ammunition Support Detachment, Vieques

Dear Mr. Cloe:

The Puerto Rico Environmental Quality Board (PREQB) has completed its review of the Draft Final Completion Report, Removal Action SWMU 6, SWMU 7, AOC J and AOC R, Former Naval Ammunition Support Detachment, Vieques, Puerto Rico, dated September 2009. Enclosed our comments.

If you have any questions or comments, please contact me at (787) 767-8181 X.6141.

Cordially,

Wilmarie Rivera
Federal Facilities Coordinator

cc: Daniel Rodríguez - EPA
Richard Henry - FWS
Brett Doerr - CH2M Hill
Christopher Penny - Navy

PREQB Technical Review of the Draft Final Completion Report, Removal Actions SWMU 6, SWMU 7, AOC J, and AOC R, Former Naval Ammunitions Support Detachment, Vieques, Puerto Rico, September 2009

I. GENERAL COMMENTS

1. The main purpose of this work was removal of environmental hazards. However, as some ordnance objects were known to be present at the site, the work included removal and disposal of these ordnance objects. The MEC-related work documented by this report appears to be in compliance with DoD requirements and usual MEC practices and procedures. As expected, all of the ordnance objects removed from the four sites was positively identified as non-hazardous munitions debris (MD). It appears to have been used for training or as decorations. The MD was segregated from the other scrap and debris removed from the sites and was turned over to USA Environmental for disposal at the VNTR Central Processing Center with all of the other MD removed from the VNTR. This was an appropriate and efficient method of disposal of this MD.

2. The VOC and GRO data for all sites may be significantly biased low and unusable for project objectives and resampling may be required based on the following issues.
    a. Samples were manipulated by hand to transfer to the EnCore sampler; the T-handle was not utilized. Volatilization of the sample most likely occurred as the soil was exposed to the atmosphere for a longer period than desired and excessive handling was performed during the transfer of the soil to the EnCore sampler. The EnCore sampler is intended to be used as a coring device and to collect an undisturbed sample of soil immediately after being exposed to the atmosphere. The T-handle has a viewing hole and the o-ring on the plunger will show in the viewing hole when soil has pushed the plunger fully to the back, thereby noting that the EnCore sampler is completely full. Without the T-handle, there may have been headspace present in the EnCore sampler thereby causing volatilization and adversely affecting the results.
    b. SWMU 6: Page 2-6, Section 2.3.1.3.1: It was noted that collection of sediment samples with an EnCore was difficult because the samples were under water. The sample was instead collected with a shovel and transferred to an aluminum pan and the material in the pan was used to fill the EnCore samplers. The use of this procedure resulted in excessive handling of the sample prior to going into the EnCore sampler thereby causing volatilization and adversely affecting the results. In addition, if the sediment contains excessive water, it is very difficult to get an adequate seal on the EnCore sample and in these cases, field preservation techniques should be employed in order to obtain representative and accurate results.
    c. SWMU 7, AOC J, AOC R: It was noted that EnCore samplers were collected by hand pressing them into the earth instead of using the T-

handle, as per the SOP and manufacturer's recommendations. It is unclear if hand pressing the EnCore sampler into the earth is adequate for completely filling the EnCore sampler. The T-handle has a viewing hole and the o-ring on the plunger will show in the viewing hole when soil has pushed the plunger fully to the back, thereby noting that the EnCore sampler is completely full. Without the T-handle, there may have been headspace present in the EnCore sampler thereby causing volatilization and adversely affecting the results.

d. SWMU 7: See Appendix E, Comment 4a below. The VOC and GRO validation report states that the EnCore samplers were received with the caps improperly sealed and the plunger was not properly in the locking position. Based on this information, in combination with the other comments above, the VOC results in this data set have been significantly compromised.

II. PAGE-SPECIFIC COMMENTS

1. Page 2-2, Section 2.2. Please include the third option for the disposition of the soil, based on the waste characterization sample results: leave excavated soil on-site. As discussed in the Soil Disposition Memos drafted by the Navy, the risk assessments conducted on the waste characterization soil data determined that for some areas of each of the removal sites, the excavated soil could remain on-site as it did not pose an unacceptable risk to human health or the environment. Please revise this section accordingly. Also, please include figures documenting the locations of the waste characterization sample locations and an appendix that contains the results of the waste characterization sampling. This information is needed to fully document the removal actions conducted at these sites.

2. Page 2-4, Section 2.3.1.1. Please include a discussion of the staging area for SWMU 6, shown in Photograph 11 in the text of this section. Please clarify in the text what activities were conducted in the staging area, whether these activities would have the potential for contaminating the staging area and whether the staging area was sampled prior to and after conducting these activities.

3. Page 2-4, Section 2.3.1.2. Please clarify why the final stockpile was located outside the contaminated area rather than inside the confined area, as other stockpiles were located to ensure no cross-contamination. Please revise the text to clarify as there is currently a discrepancy between two statements made in the first paragraph: "...The stockpiles were located within the contaminated areas to avoid cross contamination of the surrounding areas..." and "...The final stockpile was located outside of contaminated area..."

4. Page 2-4, Section 2.3.1.2. Please clarify whether sampling beneath the stockpile was conducted before establishing the stockpile and after the stockpile was removed to determine if cross-contamination occurred. Please also confirm

whether the sample was a grab sample or a composite sample and provide a reference to the location in the report where the results are provided.

5. Page 2-4, section 2.3.1.2. Please include a discussion of the disposition of excavated soil that was not taken off-site for disposal.

6. Page 2-5, Section 2.3.1.2.1. Please revise the first sentence as the wording is awkward "An area delineated by CH2M Hill as containing soils *in which* pose a risk to human health..." Please provide additional detail on the lead-contaminated area. Please document how the lead contaminated area was detected and sources were observed, what sampling was conducted to delineate the extent of lead contamination, how the extent of excavation of this subarea was determined and how the confirmation sampling that was conducted to determine that the excavation was sufficient.

7. Page 2-6, Section 2.3.1.3.1. Please clarify whether the confirmatory samples were identified as sediment or soil samples and labeled as such.

8. Page 2-7, Section 2.3.2.2. Please include a discussion of the disposition of excavated soil that was not taken off-site for disposal.

9. Page 2-8, Section 2.3.3. Minor organizational comment – please add Section 2.3.3.1, Site Clearing, to this section to be consistent with the organization of information presented for the other Removal Action Site sections.

10. Page 2-9, Section 2.3.3. Please clarify in the text what activities were conducted in the staging area, whether these activities would have the potential for contaminating the staging area and whether the staging area was sampled prior to and after conducting these activities.

11. Page 2-9, Section 2.3.3.1. Please include a discussion of why the Navy requested additional excavation to 2 feet below ground surface (bgs) at this site. Also, please clarify in the text why surface scraping was conducted and the disposition of this material.

12. Page 2-9, Section 2.3.3.1. Please include a discussion of the disposition of excavated soil that was not taken off-site for disposal.

13. Page 2-9, Section 2.3.3.2. The last two sentences of this section state: "Once the confirmation sampling was completed, the MOV accepted the area as completed based on physical condition of site, not residual risk assessment results. This documentation can be found in Appendix I." The documentation provided in Appendix I only indicate that an inspection was conducted. There is no mention of acceptance of the site by the MOV. Please clarify the purpose of the inspection as well as what is meant by "the MOV accepted the area as complete"

since the site remains a CERCLA site until a decision document is signed by EPA with PREQB concurrence that no further action is required.

14. Page 2-10, Section 2.3.4.1. Please clarify in the text what activities were conducted in the staging area, whether these activities would have the potential for contaminating the staging area and whether the staging area was sampled prior to and after conducting these activities.

15. Page 2-10, Section 2.3.4.2. In the first paragraph, please include a discussion of the disposition of excavated soil that was not taken off-site for disposal.

16. Page 2-10, Section 2.3.4.2. In the second paragraph, please clarify why silt fencing was not placed prior to debris removal actions (it was placed after debris removal) and whether sediment transport to the waterway occurred during debris removal. Please note that at other removal action sites, silt fencing installation occurred prior to conducting the debris removal, as documented in Sections 2.3.2.1 and 2.3.3.

17. Figure 3. The blue stripe at the bottom of the figure interferes with information shown on the figure. Please remove or reconfigure the stripe so it does not interfere with data or the legend/scale. Also, the location of the soil stockpile located outside the contaminated area discussed in Section 2.3.1.2 does not appear on this figure, although the text in Section 2.3.1.2 indicates that it is shown on Figure 3. Please indicate the locations of all soil stockpiles on this figure.

Appendix E, Analytical Reports

1. Please clarify how the Action Levels under the Blank Analysis section in all validation reports were calculated. Typically, the Action Level is 5-10x the maximum concentration detected in the blank. Please clarify.

2. 1,1-Dichloroethene was detected in three trip blanks: 116701-07-TB-101, 116701-07-TB-102, and 116701-0R-TB-101. This is not a common trip blank contaminant. Please clarify if the source of this contaminant in the trip blank is known.

3. None of the data validation reports for pesticides and PCBs address the evaluation of dual column comparability. Please clarify if this was evaluated and if data were qualified if dual column relative percent differences were outside of criteria.

4. None of the data validation reports for pesticides address the evaluation of the DDT/endrin breakdown standard. Please clarify if this was evaluated and if data were qualified if breakdown was outside of the criteria.

5. SWMU 6 Data Validation Report SDG F66266
    a. The VOC validation report states that the recovery of one surrogate was high in three soil samples but no compounds were detected that were associated with the surrogate outliers and therefore no qualifiers were applied. When any surrogate is outside of the acceptance criteria, this affects all VOCs, as per Region II validation guidelines. There are not specific VOCs associated with each surrogate. Please correct the validation report and results accordingly.
    b. The VOC validation report states that the recoveries of one internal standard were low in six soil samples, samples were reanalyzed to confirm matrix interference, and no qualifiers were applied. However, since the results of the initial analyses were reported, data associated with this internal standard need to be qualified as estimated or rejected, depending on the internal standard recovery. Please correct the validation report and results accordingly.

6. SWMU 7 Data Validation Report SDG F63844R
    a. The PAH, PCB, explosive, and TPH validation reports state that the field blank was extracted 10-13 days after the date collected and that all holding time criteria were met. The holding time for aqueous samples is seven days from collection to extraction. Please clarify how holding times were met for aqueous samples. Qualification of the data is therefore required. Please correct the validation reports and results accordingly.
    b. The pesticide validation report notes that surrogate recoveries were low in sample 116701-07-Z-116 and the sample was re-extracted with acceptable surrogate recoveries. The results of the initial analysis were reported but the report states that no data were qualified. If the analysis which yielded low surrogate recoveries is being reported, the results need to be qualified as estimated or rejected, depending on the surrogate recoveries. If the results from the reanalysis are reported, qualification would not be required due to surrogate recoveries but would be due to a holding time exceedance. Please correct the validation reports and results accordingly.

7. AOC J Data Validation Report SDG F64164R
    a. The VOC validation report states that the recovery of one internal standard was low in one soil sample, sample was reanalyzed to confirm matrix interference, and no qualifiers were applied. However, since the results of the initial analysis were reported, data associated with this internal standard need to be qualified as estimated or rejected, depending on the internal standard recovery. Please correct the validation report and results accordingly.
    b. The PAH, pesticide, and TPH validation reports state that the field blank was extracted 14 days after the date collected and that all holding time criteria were met. This is an incorrect statement since the holding time for aqueous samples is seven days from collection to extraction. Qualification

of the data is therefore required. Please correct the validation report and results accordingly.

8. AOC J Data Validation Report SDG F66300
    a. The VOC validation report states that the recovery of one internal standard was low in one soil sample and no qualifiers were applied. However, since the results of this analysis were reported, data associated with this internal standard need to be qualified as estimated or rejected, depending on the internal standard recovery. Please correct the validation report and results accordingly.
    b. The metals validation report noted that antimony exhibited a recovery of 12.1%. Results for antimony in the associated samples were qualified as estimated. However, as per the validation guidelines cited on page 1 of this validation report, results <30% in the matrix spike should be rejected. Please correct the validation report and results accordingly.

9. AOC R Data Validation Report F64037R
    a. The VOC validation report states that the recovery of one internal standard was low in one soil sample, sample was reanalyzed to confirm matrix interference, and no qualifiers were applied. However, since the results of this initial analysis were reported, data associated with this internal standard need to be qualified as estimated or rejected, depending on the internal standard recovery. Please correct the validation report and results accordingly.