UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
CARIBBEAN ENVIRONMENTAL PROTECTION DIVISION
CENTRO EUROPA BUILDING, SUITE 417
1492 PONCE DE LEON AVENUE, STOP 22
SAN JUAN, PR 00907-4127

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September 24, 2010

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

Re: Review of the Draft Remedial Investigation Report Area of Concern (AOC) R, Former Naval Ammunition Support Detachment, Vieques, Puerto Rico

Dear Mr. Cloe:

The U.S. Environmental Protection Agency (EPA) completed the review of the Draft Remedial Investigation Report Area of Concern (AOC) R, Former Naval Ammunition Support Detachment, Vieques, Puerto Rico, dated July 2010. Enclosed you will find our comments.

If you have any questions or comments, please contact me at (787) 741-5201.

Sincerely,

Daniel Rodríguez
Remedial Project Manager
Response and Remediation Branch

Enclosure

cc: Wilmarie Rivera, EQB, w/ encl.
Richard Henry, FWS, w/encl.
Brett Doerr, CH2M Hill, w/ encl.

EPA Comments on the Draft Remedial Investigation Report
Area of Concern (AOC) R
Former Naval Ammunition Support Detachment
Vieques, Puerto Rico
July 2010

Site Specific Comments:

1. Table 2-1, Site Sample Summary: Please note that pH in soil should be consistently included in the analysis of surface soil.

2. Section 3.1.5.4, Groundwater Flow, page 3-4: The document indicates that the water levels collected from MW06 were removed from the piezometric surface estimations due to surveyor error; however, the water levels for this well are included on Figures 3-6 through 3-8 with no explanation. These figures should include a footnote with this information.

3. Section 4.1.3.5, Inorganic Constituents, page 4-8: Please note that the screening value for barium in surface water is 4 μg/l. The appropriate screening value was used in Appendix R.

4. Figures in Section 4, Nature and Extent of Contamination: The dark blue highlighting indicates an exceedance of the background concentration and an SSL DAF of 1. However, this color is used on contaminants such as VOCs (see Figure 4-1 [methylene chloride]), PAHs (see Figure 4-2a [benzo[a]anthracene]), pesticides (see Figure 4-3a [dieldrin]), and SVOCs (see Figure 4-4 [4-nitroaniline]). Background concentrations should only be applied to inorganics. Please explain how this rationale is applied to these chemicals.

Appendix Q - Draft Human Health Risk Assessment for AOC R:

5. Section 2, Data Evaluation: Sediments were sampled as part of the RI, and sediments are mentioned in Section 2.1 as a medium that was evaluated. However, sediments are discussed in the second paragraph of Section 2.3 on Page 2-2 as being included in the data set for soils. Please explain why sediments were not evaluated separately, since exposure to sediments may not occur under the same exposure scenario as exposure to soils. Please also revise RAGS D Table 1 to more clearly present exposure to sediments.

6. Attachment Q-1, RAGS Part D Tables, Table 2 Series: No Slope Factor for carbazole is currently available. Please remove Table 2.1 Supplement (the derivation of a soil screening concentration for carbazole) and remove this screening value from the Table 2 series. Carbazole will not be retained for

quantitative analysis. Impacts of this on the overall risk/hazard can be discussed in the uncertainty section.

7. Attachment Q-1, RAGS Part D Tables, Table 3.4 RME: This table identifies an EPC for every chemical as the maximum detected concentration. However, a 95% UCL is listed for every chemical but chromium. If an EPC can be calculated using a statistic, this should be used instead of defaulting to the maximum detected concentration.

8. Attachment Q-1, RAGS Part D Tables, Table 6 Series: Indeno(1,2,3-cd)pyrene also acts through a MMOA. Please footnote appropriately and confirm that the ADAFs were used for this chemical. Also, please correct the formatting of Table 6.1, where it appears that some of the cells are in superscript mode.

Appendix R - Ecological Risk Assessment

9. Section 1.5.2, BERA Approach, 2nd Bullet, Vieques-Wide Background Concentrations, page R-20: It should be clearly indicated that sediment data were also screened against soil background values representative of soil type Q_a.

10. Section 1.5.3, Terrestrial Habitats, page R-20: It is unclear why stream substrate data were not included in any food web modeling. As a first step, data should be screened against mammal/bird ECO-SSLs. Those chemicals exceeding the ECO-SSLs based upon maximum concentrations should be retained for site-specific food-web modeling. The food-web modeling should encompass the same terrestrial receptors used for the other soil portions of the site.

11. Section 1.5.5.2, Ephemeral Stream, page R-25: The beginning of the first sentence in the third paragraph does not make sense and should be corrected.