

32  
184



**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

September 23, 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 Post-Removal-Action Risk Assessments Area of Concern (AOC) J and Solid Waste Management Unit (SWMU) 7, Former Naval Ammunition Support Detachment, Vieques, Puerto Rico

Dear Mr. Cloe:

The U.S. Environmental Protection Agency (EPA) completed the review of the Draft Post-Removal-Action Risk Assessments Area of Concern (AOC) J and Solid Waste Management Unit (SWMU) 7, 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,

A handwritten signature in blue ink, appearing to read "Daniel Rodríguez", with a horizontal line extending to the right.

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 Post-Removal-Action Risk Assessments  
Area of Concern (AOC) J and Solid Waste Management Unit (SWMU) 7  
Former Naval Ammunition Support Detachment  
Vieques, Puerto Rico  
July 2010**

**General Comment:**

1. As a general recommendation, pH measurements should be conducted on surface soil samples, in order to reduce the uncertainty in determining whether certain soil contaminants (aluminum and iron) may be considered contaminants of ecological concern.

**Specific Comments:**

2. Figure 3-1, AOC J Removal Areas and Post-Removal Confirmatory Soil Sample Locations, and Figure 5-1, SWMU 7 Removal Areas and Post-Removal Confirmatory Soil Sample Locations: Please correct the formatting of the text in the notes.

**Appendix B, Post-Removal-Action Ecological Risk Assessment for AOC J**

3. Section B.4, Effects Assessment, page B-16: Please make sure the references to the sections on Ecological Screening Values for Surface Soil and Toxicity Reference Values are correct (e.g. refer to Section B.4.1 rather than 1.4.1).

**Appendix C, Post-Removal-Action Human Health Risk Assessment for SWMU 7**

4. Attachment 1, RAGS Part D Tables, Table 2.1, Supplement, Calculation of Residential Soil Screening Level for Carbazole, SWMU 7: The table presents the information used to develop a risk-base screening concentration for carbazole, using a slope factor from the 1997 HEAST. It should be noted that EPA no longer references the hard copy of HEAST, but rather references an online version that is unfortunately available only to EPA. No new toxicity values have been added to the online version; however, values have been deleted when information in IRIS or the PPRTV database suggests that the HEAST value should be removed. In the case of carbazole, a PPRTV assessment dated July 2008 concluded that neither a p-slope factor nor a p-unit risk could be derived for carbazole because of the lack of suitable oral or inhalation data in both humans and animals data. Therefore, carbazole should be evaluated qualitatively, not quantitatively, in the HHRA.
5. Attachment 1, RAGS Part D Tables: Please note that there is a Table 3.1a.RME, but no Table 3.1.RME.

6. Attachment 2, Figures, Figure 2, Soil Sampling Stations with Detected Metal Concentrations Exceeding Adjusted Residential Soil RSLs at SWMU 7: No results are provided for sample S0116. Please verify that no results exceeded screening criteria for this sample.

#### **Appendix D, Post-Removal-Action Ecological Risk Assessment for SWMU 7**

7. Section B.4, Effects Assessment, page B-16: Please make sure the references to the sections on Ecological Screening Values for Surface Soil and Toxicity Reference Values are correct (e.g. refer to Section D.4.1 rather than 1.4.1).
8. Section D.5.3, Terrestrial Habitats, BERA (Step 3A), page D-19: It is unclear how a mean concentration (selenium) can exceed the maximum concentration. Please provide additional information.
9. Section D.5.4, Risk Evaluation, pages D-20 - D-22: Aluminum, cobalt, iron, manganese, selenium, carbazole, dibenzofuran, and TPH were identified as COPCs for further risk evaluation in surface soil. Additional discussion should be added to support the exclusion of aluminum, cobalt, iron, and vanadium, from the list of contaminants of concern. For example, a discussion of how the concentrations identified relate to values for other receptors (similar to the selenium narrative) would be useful. Similarly, information on how many and/or the percentage of post-removal samples exceeded the maximum detected background values would also be useful to support the recommendation that the concentrations identified reflect background concentrations, rather than site-related contamination.