



COMMONWEALTH OF PUERTO RICO
Office of the Governor
Environmental Quality Board

Environmental Emergencies Response Area

31
183

September 8, 2010

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

RE: Technical 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 Puerto Rico Environmental Quality Board (PREQB) has completed its 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 our comments.

Please contact me at (787) 767-8181 X.6129 if you have any questions or comments about our review.

Cordially,

Wilmarie Rivera
Federal Facilities Coordinator

cc: Daniel Rodríguez - EPA
Richard Henry - FWS
Daniel Hood - Navy
Christopher Penny - Navy
Brett Doerr - CH2MHILL

**PREQB Technical 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**

GENERAL COMMENT

1. Please include a section on data quality objectives and the data quality evaluation conducted on the data used in the risk assessments.

PAGE-SPECIFIC COMMENTS

1. Figure 3-1:
 - a. Please add text in Section 2 or 3 or on the figure that explains the additional 2-foot excavation area denoted on this figure.
 - b. Please edit Note text for format. Letter spacing needs to be corrected.
2. Figure 5-1: Please edit text for format. Letter spacing needs to be corrected.

Appendix A, Human Health Risk Assessment for AOC J and Appendix C, Human Health Risk Assessment for SWMU 7

1. Page A-2, Section A.2.1 and Page C-2, Section C.4.1: Please include a discussion of all potential media present at the site and why soil was selected as the only exposure media for the human health risk assessment. This comment also applies to Section C.4.1.
2. Section A.5.6 and Page C-11, C.9.6: Please discuss uncertainties that may underestimate actual risks or increase uncertainty in the HHRA results. Examples are uncertainty in data collection (using soil samples to characterize all soils at a site) and laboratory analysis; using animal studies as the basis for human toxicity criteria, using surrogate toxicity criteria, and not evaluating antagonistic or synergistic effects of multiple chemicals.

Appendix D, Ecological Risk Assessment for SWMU 7

1. Page D-21, Section D.5.4: The maximum and mean concentrations of several metals including aluminum, cobalt, iron and vanadium exceed their respective soil ecological screening values associated with potential adverse effects on plants and terrestrial invertebrates (except for vanadium which provides a potential risk to upper trophic level receptors only) as well as the West Vieques background UTL. The risk assessment states that the concentrations of these metals are within background levels based on the maximum concentration of aluminum, cobalt, iron and vanadium detected in the West (and East) Vieques background surface soil data set. In order to strengthen the

contention that the levels of aluminum, cobalt and iron are within the range of background concentrations, a statistical analysis could be provided (e.g., ProUCL) between the data sets. In addition, please describe the relative distribution of these metals compared to the pre-removal sampling results as well as relative to the post-removal action. The presence of any particular patterns or lack of patterns that may support the background viewpoint should be identified.