



COMMONWEALTH OF PUERTO RICO
Office of the Governor
Environmental Quality Board



ENVIRONMENTAL EMERGENCIES RESPONSE AREA

December 21, 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 Streamlined Remedial Investigation/Feasibility Study Report, Solid Waste Management Unit 1 (SWMU 1), Former Vieques Naval Training Range, Vieques, Puerto Rico

Dear Mr. Cloe:

The Puerto Rico Environmental Quality Board (PREQB) has conducted a technical review of the Draft Streamlined Remedial Investigation/Feasibility Study Report, Solid Waste Management Unit 1 (SWMU 1), Former Vieques Naval Training Range (VNTR), Vieques, Puerto Rico, received on October 2010. Our comments are provided in the attachment.

If you have any questions or comments, please contact me at (787) 767-8181 x. 6129.

Cordially,

Wilmarie Rivera
Federal Facilities Coordinator

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

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PREQB Technical Review of the Draft Streamlined Remedial Investigation/Feasibility Study Report, Solid Waste Management Unit 1, Former Vieques Naval Training Range, Vieques, Puerto Rico, dated October 2010

I. PAGE-SPECIFIC COMMENTS

1. Page 2-2, Section 2.1.3: Please indicate that groundwater is classified as SG in accordance with Puerto Rico's Water Quality Standards Regulation (2010; PRWQS).
2. Page 3-2, Section 3.1.2: Please clarify whether groundwater data were screened against PRWQS. As PRWQS is an applicable, relevant and appropriate requirement (ARAR), the more stringent of PRWQS and federal maximum contaminant levels should be used for screening.
3. Page 3-5, Section 3.2.2: Please consider including a discussion of the range of concentrations detected in background samples to put the exceedances of the background concentration used for screening into perspective.
4. Pages 3-9 to 3-10, Section 3.2.3: Please note that for groundwater that flows into other water bodies, the standard that applies is the more stringent of the applicable PRWQS for the water body or groundwater. Please present the results of this screening in this section. Please note if there are exceedances of applicable PRWQS for groundwater, as this needs to be addressed in Section 9.2.3, Compliance with ARARs.
5. Page 4-1, Section 4.1.1: In the second paragraph, please consider using the word "concentration" rather than "potential" in defining "pH," as pH is the negative log of the hydrogen ion concentration.
6. Page 4-6, Section 4.2.2, Migration from Landfill to Groundwater: This section states, "...The landfill was in operation from 1954 and to 1978, which is sufficient time (i.e., between about 30 and 55 years) for contaminants to potentially migrate to groundwater..." However, the SSG calculations relied upon to evaluate the potential for organic chemicals to migrate to groundwater shows that the mean travel time through vertical layers is in excess of 100 years. Based on the modeling, it appears contamination has not had time to reach groundwater. Please clarify.
7. Page 4-7, Section 4.2.3: As it is not known with certainty that groundwater will not be used in the future and considering that groundwater is required to meet PRWQS SG standards, please revise the second sentence of the first paragraph to state that "...nor is it likely it will be used in the future."
8. Page 7-6, Section 7.6.2: Please clarify why the decision to perform a NEBA is predicated on the results of the risk assessments, as stated in the last paragraph of this section. As a NEBA is done to provide information useful in selecting a remedy that provides the best environmental and sustainable benefit, it is unclear why the results of the risk assessment form the basis for deciding not to do a NEBA when a remedy is being selected.

9. Page 8-2, Section 8.2:

- a. Bullet 3: Please clarify if revegetation is part of the Enhanced Native Soil Cover and Institutional Controls. Plant species are listed; however, the text does not indicate they will be planted once the soil cover is in place.
- b. Due to the potential for erosion to occur until plants are established, please consider adding a requirement for a site visit after a heavy rain event until plant species are established.
- c. Bullet 4: The human health risk assessment only evaluated US Fish and Wildlife Service worker exposure to surface soil. A construction/excavation exposure scenario was not quantified. However, the institutional control presented only restricts “unauthorized and uncontrolled excavation and drilling at the site, and any land surface activities that permanently expose waste materials or release associated contamination...” It appears that controlled excavation and drilling and activities that would temporarily expose waste materials would be allowed. As exposure was not quantified, it seems prudent to restrict any activity that would result in exposure to waste materials or releases of contamination. This is consistent with the human health conceptual site model presented in Figure 1 of Appendix C. Please address. This comment applies to Section 8.3, Bullet 4 also.

10. Page 8-3, Section 8.3: For Bullet 5, due to the potential for erosion to occur until plants are established, please consider adding a requirement for a site visit after a heavy rain event until plant species are established.