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United States Department of the Interior



FISH AND WILDLIFE SERVICE

Boqueron Field Office
P.O. Box 491
Boqueron, Puerto Rico 00622
September 2, 2003

Mr. Chris Penny
Remedial Project Manager
Naval Facilities Engineering Command
1510 Gilbert St.
Norfolk, Virginia 23511-2699

Re: Final Remedial Investigation/Feasibility Study for Solid Waste Management Units 6 and 7, and Area of Concern (AOC) H and AOC J, Former US Naval Ammunition Support Detachment, Vieques Island, Puerto Rico

Dear Mr. Penny:

The Navy is proposing to conduct a Remedial Investigation (RI) and Feasibility Study (FS) on four sites within the former Naval Ammunition Support Detachment (NASD). Two of these sites, Solid Waste Management Unit (SWMU) 6- Mangrove Disposal Site and Area of Concern (AOC) 3- Former Staging Area, are located within the Department of the Interior lands that form the Vieques National Wildlife Refuge. The other two sites, SWMU 7-Former Quebrada Site and AOC H-Former Power Plant, are on lands transferred to the Municipality of Vieques.

All of the sites, including the lower portion of SWMU 7, are located in coastal estuarine environments. SWMU 6 is located adjacent to Kiani Lagoon, in an intermittently flooded black mangrove wetland. The rest of the sites are adjacent to intermittent streams (quebradas) or ditches that are brackish, usually vegetated with mangroves, and open to the sea during heavy rains.

The Final RI/FS has incorporated some of the recommendations made by the Service in previous meetings and correspondence. However, some of the changes recommended by the Service were not made, nor was there any justification in the document as to why these recommendations were not implemented.

Section 3 Initial Evaluation and Conceptual Site Models

Section 3.2. Conceptual Site Model: We suggested that the conceptual site model for all the sites should include a groundwater dermal contact risk for aquatic organisms (crabs) particularly land and fiddler crabs. We even included the biology of the crabs that supported the suggestion. We appreciate the fact that aquatic organisms, like crabs, were included in the concept model for

sediments, but are disappointed that you have neglected to include a groundwater dermal contact pathway. We continue to conclude that dermal groundwater contact is a pathway for land crabs in SWMU 6, and AOC J.

Section 5 Human Health and Ecological Risk Assessment

Both Navy Guidance on Conducting Ecological Risk Assessment (ERA) and the June 2000 EPA Region IV Guidance on ERA stress a tiered approach. However, the EPA guidance stresses that the first five steps should occur prior to the Remedial Investigation phase to avoid problems with the rest of the process. It also stresses communications with the stakeholders early in the process. After the expanded Preliminary Assessment/Site Investigation was published in 2002, the Service asked about conducting an ERA, which would have been an appropriate time to begin the tiered process and discussions.

The EPA guidance does not provide any specifics regarding the sampling matrices to be sampled. It does say that the tiered approach should start as soon as some data is available from the site. Although the tiered approach using the traditional sediment, water and soil samples is usually the appropriate way to proceed, we are profoundly disappointed that you chose to ignore data that indicates a complete exposure pathway to two ecological receptors at SWMU 6. As mentioned in Section 2.3.1.4, the Service carried out an initial sampling of land crabs and fiddler crabs at SWMU 6 and published a report in 2002. Data show that pesticide and metal levels are higher in crabs from SWMU 6 than crabs sampled at Sandy Point, St. Croix, or Laguna Boca Quebrada, near SWMU 4, Vieques. All the sites are located in or adjacent to wetland areas which are habitat for land crabs and fiddler crabs. These organisms are used by other wildlife as prey items, and in the case of land crabs, as a food item by humans. We believe that the exposure pathway information from the crabs should be a starting point for the Ecological Risk Assessment. We recommend that the Navy consider convening all the stakeholders including Puerto Rico's Environmental Quality Board and Puerto Rico's Department of Natural and Environmental Resources to discuss this issue.

The Service looks forward to a close working relationship with the Navy to assure that the fish and wildlife resources of Vieques Island and the Vieques National Wildlife Refuge are not adversely impacted by environmental contaminants.

Thank you for the opportunity to comment on this document, if you have any questions, please contact Felix Lopez of my staff, at 787/851-7297 extension 26.

Sincerely yours,



Carlos A. Diaz
Acting Field Supervisor

cc:

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