UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 2
290 BROADWAY
NEW YORK, NY 10007-1866

AUG 3 2006

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Daniel F. Kalal
Commander, U.S. Navy
Officer in Charge
Naval Activity Puerto Rico
P.O. Box 1418
Ceiba, PR 00735

Re: Naval Activity Puerto Rico (NAPR), formerly Naval Station Roosevelt Roads, EPA I.D. Number PRD2170027203,

1) Solid Waste Landfill (SWMU #3) Semiannual Groundwater Monitoring

2) Summary Reports for Monitored Natural Attenuation (MNA) Sites

3) Additional Documents for Public Repositories

Dear Commander Kalal:

The United States Environmental Protection Agency (EPA) Region 2 has the following comments and requests:

Solid Waste Landfill (SWMU #3) Semiannual Groundwater Monitoring

EPA has completed its review of the February 15, 2006 Semiannual Groundwater Monitoring Report for the September 2005 sampling event (the Report), submitted to EPA by copy of your letter of March 22, 2006 addressed to Mr. Julio I Rodriguez-Colon of the Environmental Quality Board.

Since the landfill is a solid waste management unit (SWMU) which must be addressed under the corrective action requirements of the facility's existing RCRA permit[1], EPA has reviewed the

[1] EPA and the Navy are currently negotiating a new administrative order on consent which is expected to address future corrective action requirements at the facility, including at SWMU 3, the landfill.

Report for conformance with the September 1999 Groundwater Sampling and Analysis Plan (SAP) for the Landfill and both RCRA Subtitle D requirements for municipal solid waste landfills given in 40 CFR Part 258 and the RCRA Subtitle C requirements for hazardous waste landfills given at 40 CFR Part 264. EPA has determined that Figure 4-1 of the Report, which according to Section 4.0 of the Report constitutes "a proposed decision matrix for determining when assessment monitoring should begin...."is not fully acceptable, and needs to be revised and/or clarified. As part of our review, EPA requested our contractor, Booz Allen Hamilton (BAH), to review Figure 4-1 of the Report. BAH's comments, which EPA has reviewed and concurs with, are given in the enclosed Technical Review.

Within 35 days of your receipt of this letter, please submit a response addressing all comments in the enclosed Technical Review, and/or a revised Figure 4-1, along with a discussion of the relationship of the procedures shown in revised Figure 4-1 to the procedures in the September 1999 SAP.

Summary Reports for Monitored Natural Attenuation (MNA) Sites

The Navy had previously submitted to EPA the Year 3 (December 2003) and Year 4 (December 2004) Summary Reports for Monitored Natural Attenuation (MNA) Sites 124, 520, 731, 734, 1738, and 2842B, and 1995[2]. EPA has just received the February 2006 "Year 5 First Quarter Report for MNA sites 124, 520, 731, 734, 1738, and 2842B and the May 2006 "Year 5 Second Quarter Report for MNA sites 1738 and 2842B", both submitted on behalf of the Navy by the July 25, 2006 transmittal from Mr. Tunch Orsoy of CH2MHill. However, EPA has not received any subsequent reports on MNA site 1995. As has been previously discussed with the Navy, EPA plans to include corrective action requirements for those Monitored Natural Attenuation Sites in the new administrative order which is expected to replace the facility's existing RCRA permit. Therefore, **within 25 days of your receipt of this letter,** please submit two copies of any reports on MNA site 1995, which have been developed subsequent to the Year 4 (December 2004) "Summary Report", or acceptable justification for not submitting further reports on MNA Site 1995.

Additional Documents for Public Repositories

In addition to documents previously placed by the Navy in the three public repositories for NAPR corrective action documents, within 25 days of your receipt of this letter, please confirm in writing that one copy of the following documents have been sent to each of the public repositories, and have also been posted on the Navy maintained web site http://nsrr-ir.org/., which is accessible to the public:

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[2] As indicated in the April 2004 "Year 2003 Summary Report and Groundwater Test Results for UST Sites 735 and 1995" prepared for Naval Activity Puerto Rico by BoksoMoni Environmental, under contract with Cape Environmental.

1) the Year 3 (December 2003) and Year 4 (December 2004) Summary Reports for Monitored Natural Attenuation (MNA) Sites 124, 731, 734, 2842B, 1738, and 520, and 735 and 1995;

2) the February 2006 "Year 5 First Quarter Report for MNA sites 124, 520, 731, 734, 1738, and 2842B and the May 2006 "Year 5 Second Quarter Report for MNA sites 1738 and 2842B";

3) the September 1999 Groundwater Sampling and Analysis Plan (SAP) for the Landfill (SWMU 3) and the February 15, 2006 Semiannual Groundwater Monitoring Report (for the September 2005 sampling event), and any subsequent semiannual groundwater monitoring reports for SWMU 3; and

4) Revision 1 - July 28, 2006 of the May 2006 Work Plan to Conduct Phase I RCRA Facility Investigation, Pineros and Cabeza de Perro Islands.

The three public repositories are located at:

U. S. Environmental Protection Agency
Caribbean Environmental Protection Division
Centro Europa Building, Suite 417
1492 Ponce de Leon Ave
Santurce, PR 00907-4127
Attn: Mr. Luis Negron, phone 787- 977-5855

Puerto Rico Environmental Quality Board
National Plaza Building
431 Ponce de Leon Ave
Hato Rey, PR 00917
Attn: Ms. Yarissa Martinez, phone 787- 365-8573

Ceiba Public Library
Ceiba Mayor's Office
Lauro Piñero Ave, Plaza de Recreo
Ceiba, PR 00735
Tel: (787) 885-2180

If you have any questions, please telephone Mr. Timothy R. Gordon, of my staff, the Remedial Project Manager, at (212) 637- 4167.

Sincerely yours,

Dale Carpenter
Chief, Caribbean Section
RCRA Programs Branch

Enclosure

cc: Ms. Yarissa Martinez, P.R. Environmental Quality Board, w/encl.
Mr. Julio I. Rodriguez Colon, P.R. Environmental Quality Board, w/encl.
Ms. Kathy Rogovin, Booz Allen & Hamilton, w/encl.
Mr. David Criswell, , U.S. Navy, BRAC PMO SE, w/encl.
Mr. Mark Davidson, U.S. Navy, BRAC PMO SE, w/encl.
Mr.Pedro Ruiz, NAPR, Public Works Department, w/encl.
Mr. Tunch Orsoy, CH2MHill, w/o encl.

TECHNICAL REVIEW

FIGURE 4-1
ASSESSMENT MONITORING DECISION DIAGRAM
SEMI-ANNUAL GROUND WATER MONITORING REPORT DATED FEBRUARY 15, 2006 (for the September 2005 sampling event)
SWMU 3

NAVAL ACTIVITY PUERTO RICO
CEIBA, PUERTO RICO

REPA3-2203-089
July 28, 2006

I. INTRODUCTION

A technical review has been performed on the Assessment Monitoring Decision Diagram (Flow Chart) presented as Figure 4-1 of the February 15, 2006 Semi-Annual Groundwater Monitoring Report for the September 2005 sampling event at the Solid Waste Landfill Facility (i.e., solid waste management unit [SWMU] 3) at Naval Activity Puerto Rico (NAPR) in Ceiba, Puerto Rico. The review was performed to evaluate conformance of the Flow Chart with the September 1999 Groundwater Sampling and Analysis Plan (SAP) for SWMU 3 and with relevant regulatory requirements. A number of potential concerns have been identified with the approach outlined in the Flow Chart for the evaluation of groundwater monitoring data. These concerns are presented in the following comments.

II. SPECIFIC COMMENTS

1. The relationship of the evaluations outlined in the Flow Chart to the overall groundwater monitoring program established in the SAP is unclear. The term compliance monitoring is used in the first three decision boxes of the Flow Chart. However, no compliance monitoring program has previously been defined in the SAP. Moreover, the decisions included in the initial decision boxes of the flow chart involve the comparison of the monitoring data to regulatory criteria. However, according to the SAP, these comparisons are specifically reserved to the Assessment Monitoring Program. In addition, the final decision box of the Flow Chart indicates that Assessment Monitoring will be initiated only after completing the evaluations presented in the Flow Chart. NAPR should clearly indicate how the decisions outlined in the Flow Chart fit into the overall monitoring program established in the SAP.

2. Statistical methods have not been identified for a number of the comparisons established in the Flow Chart. This includes comparisons established in the initial three decision boxes of the Flow Chart, as well as comparisons established in subsequent decision boxes in which decisions will be made regarding the application of the Kruskal-Wallis statistical method. The implication may be that a type of non-statistical comparison is intended to accomplish these initial comparisons. However, it appears that statistical analysis will be necessary to perform these comparisons. The Flow Chart should be revised to clearly identify how all comparisons specified throughout the Flow Chart will be performed. Appropriate statistical methods should be identified.

3. The Flow Chart includes decisions regarding the statistical validity of background concentrations. The statistical validity of the background concentrations apparently will be based on the number of nondetects contained in the background data set. A proportion of nondetects greater than 50 percent will be used as the criteria for identifying a statistically invalid background data set. If a background data set is determined to be invalid, statistical comparisons will be delayed and additional background data will be collected. The rationale for this approach is unclear. Nonparametric statistical methods are available, and have been identified in the SAP, that are fully capable of providing reliable statistical analysis of data sets with greater than 50 percent nondetects. These methods should be used to perform the necessary comparisons in such cases.

4. The Flow Chart indicates that if the concentrations continue above the unquantified landfill background concentration after two compliance monitoring events, the background will be reestablished based on all available data, including background and compliance (downgradient) data. As previously indicated in Specific Comment No. 3, there appears to be no reason why statistical analysis cannot be performed prior to this step using background data sets containing greater than 50 percent nondetects. Moreover, it is unacceptable to establish a background data set using downgradient data unless it is clearly shown that the downgradient wells involved have not been impacted by the landfill.