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

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CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. Christopher Penny
Navy Technical Representative
Installation Restoration Section (South)
Environmental Program Branch
Environmental Division,
Atlantic Division (LANTDIV), Code 182
Naval Facilities Engineering Command
1510 Gilbert Street
Norfolk, VA 23511-2699

Re: Naval Station Roosevelt Roads - Sampling and Analysis Report for SWMUs #53 and #54; EPA I.D. Number PRD2170027203

Dear Mr. Penny:

The United States Environmental Protection Agency (EPA) Region 2 has completed its review of the Sampling and Analysis Report for SWMUs #53 and #54 ("the report") [which includes an 11 page "Executive Summary"] submitted on the Navy's behalf by Baker Environmental Incorporation's letter of April 11, 2001. The report was submitted pursuant to corrective action requirements of the 1994 RCRA Final Permit for Naval Station Roosevelt Roads.

EPA has the following comments on the report:

1. In the first paragraph of Section 5.3.1 (Surface Soil results for SWMU #54) on page 5-4 of the report and in the first paragraph on page ES-6 of the "Executive Summary," it is stated that 5 PAH compounds were detected and that "It should be noted that all of these detections were below any of the screening criteria RBCs..." However it is then stated in the following sentence that "Except for benzo(a)pyrene which was detected above the residential RBC...." These two statements conflict. EPA requests that the language in Section 5.3.1 of the report and on page ES-6 of the "Executive Summary," as well as elsewhere in the report or "Executive Summary," as necessary, should be revised to correct such inaccurate or conflicting language. In addition, to be more fully accurate, Section 5.3.1 and page ES-

6 of the "Executive Summary" should be revised to also note that the detection limits for benzo(a)pyrene in all 18 surface soil samples at SWMU 54, except for perhaps one sample were above the Region 3 residential RBC screening values, and in that one sample (54SS07), benzo(a)pyrene was in fact detected at an estimated concentration of 580 ug/kg, well above the residential RBC of 87 ug/kg. Also, the detection limits for benzo(a)pyrene were above the industrial RBC screening values in all but 3 of the surface soil samples at SWMU 54, but in those 3 samples the measured concentrations were below the industrial RBC.

2. In the Conclusions for SWMU 53 on page 6-1 of the report and on page ES-9 of the "Executive Summary," there is no discussion regarding the elevated lead detections in the surface soils (6 out of 9 samples exceeded EPA's Interim Soil Lead Guidance [July 14, 1994] acceptable soil concentration of 400 mg/kg lead, with a maximum detected concentration of 3900 mg/kg). Also arsenic, exceeded its Region 3 residential carcinogenic risk based concentration (RBC) of 0.43 mg/kg in 15 out of 15 samples, with a maximum detected concentration of 5.6 mg/kg. These analytical results clearly indicate that there has been a release of lead to the surface soils, since 4 of the 6 samples with elevated lead concentrations had concentrations of 2,200 mg/kg lead or more, which exceeds the [natural occurring] "average detected background" concentration of 7.515 mg/kg, by nearly 300 [exactly 293] times. The significance of the arsenic detection is less clear, since the maximum concentration detected (5.6 mg/kg), only exceeds the [natural occurring] "average detected background" concentration of 1.4 mg/kg, by four times.

   Likewise in the Recommendations for SWMU 53 on page 6-3 of the report and page ES-11 of the "Executive Summary," it is stated that a [full] RFI should "...be conducted at this SWMU to delineate the 4,4'-DDT contamination in the surface soils;" yet there is no discussion regarding the elevated lead and arsenic detections. EPA requests that within 45 days of your receipt of this letter, the Navy submit a revised Conclusions and Recommendations for SWMU 53 (Pages 6-1 & 6-3 of the report and pages ES-9 and ES-11 of the "Executive Summary") which acceptably address the elevated metal concentrations (especially the elevated lead, and to a lesser extent the arsenic) detected in the surface soils at SWMU #53.

   Also, as recommended in Section 6.2 (page 6-3) of the Report, within 45 days of your receipt of this letter, please submit an RFI work plan to fully characterize the surface soils impacted by releases of 4,4'-DDT from SWMU #53, and, as per the above comments on the elevated metal concentrations, to also fully characterize the surface soils for lead and possibly arsenic impacts.

3. In the Conclusions for SWMU #54 (on page 6-2 of the Report and pages ES-9 and 10 of the "Executive Summary"), it is stated that the results do **not** indicate that groundwater has been impacted by SWMU #54, and that "*...the contaminants detected in the groundwater are [due to releases] from the Building 510 site that is located upgradient of SWMU #54.*" EPA does not accept either conclusion, and has a number of concerns about these conclusions, including:

   a) groundwater in three wells immediately south of SWMU #54 has clearly been impacted by contaminant releases: well 510 DW-1had benzene at 91 ug/L (MCL = 5 ug/L) and Isobutanol at 2900 ug/L (Region 3 RBC for Tap water = 180 ug/L); well 510 MW5 had Trichloroethene at 230 ug/L (MCL =5 ug/L); and well 510 MW3 had Trichloroethene at 5.9 ug/L (MCL =5 ug/L) and Chloroform at 5.8 ug/L (Region 3 RBC for Tap water = 0.15 ug/L);

   b) the groundwater flow patterns have not been adequately defined across the SWMU 54/Building 510 area. In fact, the potentiometric map (Figure 3-1) submitted with the report, does not show Building 510 to be upgradient of SWMU 54. The measured water table elevation of 13.46 feet in well 510-MW4, the well closest to SWMU #54, is clearly higher than the water table elevation of 7.50 feet in well 510-MW2, located adjacent to the former location of Building 510. Therefore, well 510-MW4, the well closest to SWMU 54, is apparently upgradient, not down gradient of well 510-MW2, the well closest to Building 510. Figure 3-1 shows a radial groundwater flow pattern from the well 510-MW1 area, which is located southwest of SWMU #54, with strong southerly gradient (i.e. direction of groundwater flow) towards the former location of Building 510, not away from it, as would be the case if it were upgradient to SWMU 54. The cause of the radial groundwater flow pattern, which is quite anomalous, is not clear from Figure 3-1, nor discussed in the text, and the overall SWMU 54/Building 510 regional groundwater flow regime is not depicted;

   c) the report (on page 2-2) and the "Executive Summary" cite the "Site Characterization for Site 510 developed [for the Navy] by Blasland, Bouck, and Lee [BB&L].." in 1995 as supporting the current conclusions regarding groundwater impacts from Building 510. EPA has no record of the 1995 BB&L data ever being submitted to EPA; and

   d) the Navy has never reported detection of a release from Building 510, **as required pursuant to Conditions I.F.20, III.C, and III.D of the 1994 Final RCRA Permit** for Naval Station Roosevelt Roads (the Permit), nor has the Navy advised EPA that Building 510 should be identified as a new SWMU [solid waste management unit], as required

pursuant to Condition III.C.1 of the Permit.

For all the above reasons, EPA does not approve the no further action recommendation for SWMU #54 as recommended in Section 6.2 (page 6-3) of the report and on page ES-11 of the "Executive Summary." Furthermore, since the detection of releases from Building 510 has never been reported to EPA, or defined as a new SWMU, as required by the Permit, and since the two buildings are in close proximity to one another and it would be difficult to determine whether the constituents detected in the groundwater were sourced by releases from Building 1914 (SWMU #54) or Building 510, EPA recommends that instead of defining Building 510 as a new SWMU, SWMU #54 should be redefined to include both Building 1914 and the former Building 510.

Therefore, within 45 days of your receipt of this letter, please submit either:

a) revised Conclusions and Recommendations for SWMU #54 (on pages 6-1 through 6-3 of the report and pages ES-9 and 10 of the "Executive Summary") and other sections of the Sampling and Analysis Report as necessary, to reflect that SWMU #54 has been redefined to include any releases from either Building 1914 or former Building 510, and that further characterization of the groundwater is required, along with an RFI work plan for further groundwater characterization of the entire SWMU 54 area (including both Building 1914 and former Building 510), especially north and northeast of well 510-MW4, or

b) pursuant to Condition III.C of the Permit, a new SWMU notification and a SWMU Assessment Report for Building 510, along with revised Conclusions and Recommendations for SWMU #54 (on pages 6-1 through 6-3 of the Sampling and Analysis Report and pages ES-9 and 10 of the "Executive Summary"), to reflect that further characterization of the groundwater is required for the area encompassing both SWMU 54 and the new SWMU which will have been defined for Building 510, and an RFI work plan for further groundwater characterization of the entire SWMU 54/Building 510 area, especially north and northeast of well 510-MW4 .

In addition, within 45 days of your receipt of this letter, please submit two copies of the report on the "Site Characterization for Site 510 developed [for the Navy] by Blasland, Bouck, and Lee [BB&L].." in 1995.

If you have any questions, please contact me at (212) 637- 4167.

Sincerely,

Timothy R. Gordon
Remedial Project Manager
RCRA Programs Branch

cc: Ms. Madeline Rivera, Public Works Department, Naval Station Roosevelt Roads
Ms. Alssa Colon, P.R. Environmental Quality Board
Ms. Kathy Rogovin, Booz Allen & Hamilton
Mr. Mark Kimes, Baker Environmental
Mr. John Tomik, CH2MHill