



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY - REGION II

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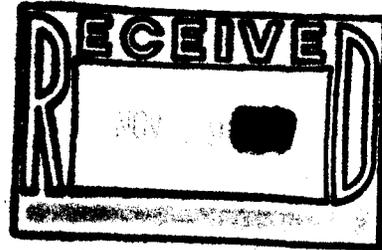
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Mr. Paul A. Rakowski, P.E., DEE
Head , Environmental Program Branch
Environmental Division,
Atlantic Division (LANTDIV), Code 182
Naval Facilities Engineering Command
1510 Gilbert Street
Norfolk, VA 23511-2699

Re: Naval Station Roosevelt Roads - 1) Preliminary Working Copy (August 29, 1997) Revised Addendum to Draft RFI Report for OUs 1, 6, and 7; and 2) SWMU #30 (Former Incinerator);

EPA ID # PR2170027203

Dear Mr. Rakowski:

The United States Environmental Protection Agency (EPA) Region 2 has completed its review of the Preliminary Revised Addendum to Draft RFI Report for OUs 1, 6, and 7 SWMUs transmitted on behalf of the Navy by Baker Environmental Inc's letter of August 29, 1997, and has the following comments:

1. Tables 4-1 and 4-2 should be labeled "**Average Detected Constituents in Background**" [bolding for emphasis only], as the concentration values listed are the average background detections plus two normal standard deviations.
2. On Table 4-1, why is ND (no detections) listed for the [average] background concentration of dioxin in subsurface soils, and the herbicide 2,4,5-T is not even listed, when positive detections of both were recorded in subsurface soils from samples BGMW03-03 and BGMW01-06 respectively (refer to July 14, 1997 Preliminary Working Copy of same Report, containing full analytical results)? The table should be corrected as necessary.
3. On Table 4-2, why no [average] background concentrations of the semi-volatile constituents dimethylphthalate and bis(2-ethylhexyl)phthalate listed for groundwater, when positive detections of both were recorded in groundwater samples from BGMW03 (refer to July 14, 1997 Preliminary Working Copy of same Report, containing full analytical results)? The table should be corrected as necessary.

SWMU #30 (Former Incinerator)

In addition, as was discussed briefly during the October 21 and 22, 1997 meetings in San Juan, EPA does not approve the conclusions and recommendation, given in the [as yet not fully approved] July 1996 Draft RFI Report for OUs 1, 6, and 7 SWMUs, of no further action for SWMU #30 (Former Incinerator). Although EPA's original comments (November 8, 1996), by an inadvertent omission, did not address the conclusions and recommendations for that SWMU, EPA does not fully concur with the Navy's determination that the contamination at SWMU #30, as presently characterized, poses no unacceptable threat to human health and the environment.

EPA has never given final approval for the July 1996 Draft RFI Report for OU 1, 6, and 7 SWMUs. In fact, this letter, commenting on the third [August 29, 1997] Preliminary Revised Addendum to the July 1996 Draft RFI Report, results from some of the unresolved issues regarding EPA's final approval of that report. EPA's basis for not approving the conclusions and recommendation of no further action for SWMU #30 are that the human health and/or the environmental risk evaluations did not consider all contamination known at the site, nor has the site been sufficiently characterized for certain detected contaminants to make such determinations. Our reasons are described more fully below.

Pursuant to the September 1995 approved RFI work plan five surface soil samples were collected at SWMU #30; however, pursuant to that workplan, only two of these five surface samples were analyzed for the full Appendix IX constituent list. The other three surface samples were only analyzed for volatiles, semi-volatiles, and "RCRA metals" (i.e., listed in Table 1 of 40 CFR Part 261.24).

In both of the surface soil samples subject to the full Appendix IX analytical program (30SS03 and 30SS04), PCBs (Aroclor 1260) were found at concentrations exceeding the EPA Region III residential risk based concentration (RBC) level of 83 ug/kg (utilized in the Draft RFI report as a relevant standard/action level). The PCB concentrations measured were 200 and 250 ug/kg respectively (Table 5-21 of July 1996 Draft RFI Report for OUs 1, 6, and 7). Since both of the surface soil samples subjected to PCB analysis found concentrations exceeding the RBC level, surface soils cannot be considered adequately characterized for that constituent.

Subsurface soil samples were not collected during the 1995 RFI investigations. However, during underground storage tank (UST) program investigations in 1993 subsurface soil samples were collected and analyzed (but no surface soil samples). In the nine soil borings installed as part of the 1993 UST investigations, elevated total petroleum hydrocarbon (TPH) concentrations (exceeding 100 mg/kg) were present in 8 of the 19 subsurface soil samples collected. The 8 samples with elevated TPH concentrations ranged in depth from four to ten feet below ground surface (BGS), with the maximum TPH concentration detected being 9800 mg/kg in sample 1983-SB6 at the depth of 4 to 6 feet BGS. The TPH concentration of 100 mg/kg is generally taken as the clean-up standard in Puerto Rico, under the UST program. The results were reported in the October 1994 Site Characterization Report prepared by Blasland, Bouck, & Lee for the UST program. The 1994 UST Characterization Report (page 4-1) estimated that "the maximum volume of [TPH] contaminated soil at the site is ... 918 cubic yards". The July 1996

Draft Final RFI Report for OUs 1, 6, and 7 did not evaluate the human health or the environmental risk posed by the TPH contaminated soils. The Draft RFI report must address whether or not the TPH contaminated soils at SWMU #30 should be remediated.

In addition, as part of those 1983 UST investigations, a more extensive analytical program was performed on 5 discrete subsurface samples from four of the borings (1983-SB3, -SB4, -SB6 [two intervals], and SB7). Results are listed in Table 4-2 of the 1994 Characterization Report. The depth intervals of these 5 samples ranged from 4 feet BGS to 12 feet BGS. PCBs (Aroclor 1260) were detected in 3 of the 5 subsurface samples at concentrations ranging from 38 to 130 ug/kg. Because of the presence of elevated PCB concentrations in 3 of the 5 subsurface samples analyzed and both (2) of the surface samples analyzed, further delineation of PCB contamination in both the surface and subsurface soils at SWMU #30 appears necessary, before a definitive determination of the risks to human health and the environment can be made. Therefore, a program of additional surface and subsurface sampling for PCBs (and antimony as will be discussed below) is required.

In addition, during the 1983 UST program investigations five semi-volatile constituents were detected in a subsurface soil sample (4 to 6 foot BGS) from boring 1983-SB6. The semi-volatiles detected were naphthalene (26,000 ug/kg); acenaphthene (3,400 ug/kg); n-nitrosediphenylamine (3,600 ug/kg); phenanthrene (6,900 ug/kg); and 2-methylnaphthalene (64,000 ug/kg). Semi-volatile constituents were reported as non detect in the other 4 subsurface soil samples analyzed during the 1993 UST investigations. However, no information was supplied in the 1984 Characterization Report on detection levels, etc., therefore, there is uncertainty as to whether the subsurface soils have been adequately characterized for these semi-volatile constituents. Nevertheless, the 1994 UST Characterization Report stated (on page 4-1) that "This area includes the area around [soil boring] 1983-SB6, which is near the former UST, and is heavily contaminated with diesel constituents (Table 4-2)." The July 1996 Draft RFI report for OUs 1, 6, and 7 did not evaluate the human health or the environmental risk posed by contamination from these diesel semi-volatile constituents, and must be revised to address this.

Groundwater samples were collected in 5 wells installed during the 1993 UST investigations. Although a limited screening [analysis] for organic constituents (benzene, toluene, ethylbenzene, xylenes, TPH, and total naphthalenes [in 2 wells only]) and one metal (lead) was performed, no detections were reported (refer to Table 4-3 of the 1994 Characterization Report). However, as with the semi-volatile constituents, no information was supplied in the 1994 Characterization Report on detection levels, etc., therefore, there is uncertainty as to whether the groundwater was adequately characterized for these volatile constituents (and lead).

Therefore, during the 1995 OUs 1 RFI investigations, groundwater was sampled in two of the previously installed UST program wells (1983-DW1 and 1983-MW3), and a full Appendix IX analysis was conducted for both. No organic constituents, including PCBs, were detected in the groundwater of the two wells; however, the metal antimony was detected in the groundwater in both wells at total concentrations of 16.2 ug/L and 31.5 ug/L respectively, exceeding the

maximum contaminant level (MCL) of 6 ug/L in both wells (refer to Table 5-23 of July 1996 Draft RFI Report). Although the July 1996 Draft Final RFI Report concluded there was no unacceptable risk to human health posed by the antimony in the groundwater, there was no discussion of the source for this constituent, or possible environmental risks.

Furthermore, since antimony is not a "RCRA metal" (i.e., listed in Table 1 of 40 CFR Part 261.24) it was analyzed in only 2 of the 5 surface soil samples (where Appendix IX analysis was conducted), and has never been analyzed in subsurface soil samples. Therefore, since additional surface and subsurface soil investigation for PCBs appears warranted as discussed previously, additional antimony surface and subsurface soil characterization should also be performed. Also, since both (2) of the wells analyzed for antimony in the groundwater found elevated concentrations, the antimony plume may not be adequately characterized. However, the determination of the adequacy of groundwater characterization for antimony should await fuller characterization of the surface and subsurface soils for antimony.

In addition, since as discussed previously, PCBs were present in 3 of the 5 subsurface soil samples analyzed (1993 UST investigations), and in both (2) of the surface soil samples (1995 RFI investigations), the groundwater may not have been adequately characterized for this constituent, even though in both wells (2) where it was analyzed it was non-detect. However, the determination of the adequacy of groundwater characterization for PCBs should await fuller characterization of the surface and subsurface soils for PCB contamination.

Please submit within 40 days of your receipt of this letter a written response fully addressing EPA's above comments. The submission may be in the form of a "preliminary working copy", subject to finalization based on EPA's review and comments.

In addition, since its submission in July 1996, the Draft RFI report for OUs 1, 6, and 7 has been subject to extensive revision via separate addendums submitted to address various EPA comments. Due to the multiplicity of revision and addendums to that original draft RFI report, and possible confusion over the final resolution of certain issues, EPA has determined that when all issues are resolved and any additional required investigations are completed, a comprehensive revised Final RFI Report for OUs 1, 6, and 7 should then be submitted. However, the due date for such a submission will be determined when all issues are fully resolved, and any additional required investigations are completed.

Please telephone Mr. Tim Gordon of my staff at (212) 637-4167 if you have any questions.

Sincerely yours,



Nicoletta DiForte
Chief, Caribbean Section
RCRA Programs Branch

cc: Mr. Israel Torres, PREQB
Ms. Madeline Rivera, NAVSTA Roosevelt Roads
Mr. Chistopher Penny, LANTDIV
Mr. Tom Fuller, Baker Environmental