



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029

Section : 2.01
Site 20903-5640 (White Oak)
Doc. #: 0020

00048

N60921.AR.000246
NSWC WHITE OAK
5090.3a

November 19, 1999

Mr. Walter Legg
Engineering Field Activity Chesapeake
Washington Navy Yard, Building 212
901 M Street, S.E.
Washington, DC 20374-5018

Re: Review of Draft Post Removal Action Report for Sites 4 and 33 for the Former Naval Surface Warfare Center

Dear Mr. Legg:

The United States Environmental Protection Agency Region III has reviewed the above report and has the following comments:

GENERAL COMMENTS

1. To avoid confusion, complete sample identification numbers should be used throughout the text. For example, both sites include samples SB-01 and SB-02, so the text should be modified accordingly.
2. There was no discussion in the report concerning the quality assurance/quality control (QA/QC) objectives for the confirmatory sampling and whether those objectives were met. It is suggested that an additional section, subsection or a reference to the Master Workplan be included in the report that outlines the QA/QC procedures followed during the confirmatory sampling.
3. An overall summary and conclusion should be provided as an additional section of the report. This section should contain information summarizing the extent of contamination within the subsurface soil and groundwater. A discussion about the fulfillment of the primary and secondary objectives should also be included. Additionally, a discussion on the data limitations encountered is needed. Following the summary and conclusion, recommended actions or preliminary remedial action objectives should be discussed.
4. For clarity and completeness, in specific sections associated with waste transportation and disposal, the amount of waste disposed of as hazardous, as well as the disposal location, should be explicitly stated. Otherwise, it should be stated in each specific section that no waste was disposed of as hazardous.

The EE/CA for Site 4 & 33 states that approximately 20 percent, or a conservative 1,385 cubic yards, of the generated wastes will be disposed at a hazardous waste incinerator.

The remainder was specified for offsite landfill disposal. Since this issue is not discussed in the RA Report, the text should be modified.

5. The dimensions of each specific excavation should be stated in the text. The total volume of waste and soil removed should also be listed. This would allow comparison with the values estimated in the EE/CA Report. The text should be modified accordingly.

Additionally, the rationale behind the use of sidewall samples from varying depth to determine the need for additional excavation should be provided. Samples were collected from a range of 2 to 15 feet below ground surface. It is unclear if these sample locations were chosen by random or from visual inspection. This should be clarified in the text.

6. The EE/CA discusses the applicable or relevant and appropriate requirements, but no information pertaining to ARARs is contained in this report. Compliance with the ARARs should be discussed in the RA Report.
7. The report states that these results will be incorporated into the RFI for Site 4. However, the RFI, dated September 1999, does not reference this Removal Action. The actions taken during the RA directly influence the RFI findings, so it is unclear why the RFI overlooked this RA. This omission should be addressed in either RA Report or the revised *RFI for Sites 2, 3, 4, 7, 8, 9, and Paint Branch*.
8. Certain aspects of the excavation and restoration remain unclear. Specifically, the procedures for sediment/erosion control, for tree clearing, for groundwater monitoring well maintenance, and for offsite excavation. If these procedures are described elsewhere, they should be properly referenced in the RA. Appendix A.2 cites the exposure of the screen from monitoring well 4GW11A, but information regarding either the removal or protection of this monitoring well is omitted. Additionally, no reference is made to monitoring well 4GW11 which also lies within the excavation area. Since these wells were used in future studies, it is assumed they either remained intact or were restored. The proper explanation should be added to the text.
9. According to Section 2, excavation was continued based on visual inspection or high PID readings. The source of the elevated PID readings was later confirmed as groundwater volatilization. This should be discussed in further detail as it pertains to the local groundwater quality. Since groundwater monitoring wells were exposed during this excavation, volatilization from these wells is possible and should be addressed. The text should be amended accordingly.
10. The site map provided as Figure 1-2 does not accurately reflect the areas of concern. According to the text and Figures 2-1 and 2-2, Site 4 extends beyond the limits portrayed in Figure 1-2. The figures and text should be revised to display the same site characteristics.

11. The qualifiers and superscripts used throughout the report and appendices should be defined. The text should be corrected accordingly.

SPECIFIC COMMENTS

1. *Page 2-1, paragraph 3.* The disposal of fuel-type materials at Site 4 is evidenced by the analytical data. However, this is the first report where the disposal of fuel-type materials is mentioned (no reference is provided in the EE/CA). Since the elevated TPH results play a significant role, further justification is warranted. The contamination source, PRG selection, and necessary remedial actions should be discussed.
2. *Section 2.1, page 2-1, paragraph 4.* This paragraph states that the primary RA objective was to remediate soil and solid waste present at Site 4. It is assumed the objective should be removal of soil and solid waste prior to remedial action. This statement should be in agreement with the previously stated goals for the RA. The text should be modified accordingly.
3. *Section 2.1, page 2-1, paragraph 5.* This paragraph states that the selected removal action included excavation, disposal at an offsite landfill, restoration, and revegetation. However, this alternative is listed in the EE/CA Report as including excavation, disposal at an offsite landfill or offsite incineration, restoration, and revegetation. The rationale for selecting landfill disposal instead of incineration should be provided in the text. The applicable explanation should be added.
4. *Section 2.3.1, page 2-3, paragraph 5.* The text states that as long as it could be shown that the residual TPH concentrations would not impact groundwater, further excavation is not necessary. It should be detailed what is meant by "shown." The appropriate modifications should be made.
5. *Section 2.3.1, page 2-4.* This section discusses the TPH exceedances at Site 4. Generally, where TPH exceedances occurred the excavation was expanded. However, samples SB-13, SB-18, SB-22, SB-28, SB-29, SB-33, and SB-37 show TPH exceedances, but these areas were not excavated further. The text provides adequate explanation for not expanding the excavation in the area of SB-28 and SB-29. Proper explanation for not excavating the other areas further should be added to the text.
6. *Section 2.3.1, page 2-4, paragraph 3.* The first sentence of this paragraph states the revised PRGs. The difference between the "revised" PRGs and the "original" PRGs is unclear. It should be clarified in the text.
7. *Section 2.3.2, page 2-5.* The text states that the southeastern corner did not require further excavation because the groundwater, not the subsurface soil, was the source for the elevated PID readings. The samples affected by this conclusion should be stated in the text. The lateral location of samples B1-22 and B2-16 should also be included in the text and Figure 2-2.

8. *Section 2.3.2, page 2-5, paragraph 1.* This paragraph states that a soil gas sample was collected and analyzed for VOCs and SVOCs. The analytical results should be included in the appendix, and the sample identified correctly in the text and applicable figures.
9. *Figure 2-2.* Section 2.3 states that confirmatory samples SB-08, SB-12, and SB-17 were collected along the fence line. This statement disagrees with their location on Figure 2-2, so this discrepancy should be resolved. Additionally, the sampling locations should be indicated on the figure with an arrow or bullet since the approximate locations within the grid are described in Appendix A.2.
10. *Figure 2-3.* Comparison of Figures 2-2 and 2-3 yields confusion. It appears that the delineated extent of waste disposal (Figure 2-2) is larger than the area of excavation (Figure 2-3). The source for delineating the extent of waste disposal should be provided, as well as, an explanation for this discrepancy. Additionally, Figure 2-2 contains an area where waste disposal was inferred. Since an investigation for the extent of waste disposal was conducted for the EE/CA, the methodology for addressing this area should be discussed. The appropriate modifications should be made.
11. *Table 2-1.* The footnote provided for this table states that U.S. EPA Region III industrial RBC values are presented unless otherwise stated. It is unclear why industrial values are used. Other sites at NSWC, White Oak, use residential RBC values. This discrepancy is unclear and should be defined or cited properly in the text. Including a discussion referencing the BCT's approach to screening sites would be helpful, where sites with unknown future use, industrial RBCs will be used as a default screening criteria.

This table provides the PRGs for both Site 4 and Site 33. However, Site 33 is only referenced in the footnotes. Since the text references this table in conjunction with Site 33, the table should accurately reflect PRGs for Site 33. Modifications should be made accordingly.

12. *Section 3.1, page 3-1.* This section states that the recommended removal action for Site 33 includes pumping out the contents, washing the interior, demolishing the tank, restoring the site, and revegetating. This list does not include removal. According to this statement, it is assumed the tank will be demolished in place and the site restored. It was previously assumed that the tank and its contents would both be removed. This discrepancy should be clarified in the text.
13. *Section 3.3, page 3-2.* The text states that two samples, SB-01-20 and SB-02-08, were collected from Site 33. However, Figure 3-1 shows an additional sample, SB-03. The text and figure should be adjusted to correct this difference.

It is assumed that the third sample stated in paragraph 2 refers to SB-03. Since this proposed sample was not collected, it should be removed from Figure 3-1. The appropriate changes should be made.

14. *Section 3.3, page 3-2, paragraph 4.* The text states that the confirmatory sampling analytical data will be used in the final Site 11 RFI risk assessment. Since this is the first mention of Site 11, the correlation between Site 33 and Site 11 is unclear. The relation is assumed to be based on their proximity, but this should be expounded upon in the text.
15. *Figure 3-1.* The sample identification numbers presented in this figure do not accurately express the labels utilized in the text. The text and figure should contain the same sample identification numbers.
16. *Appendix A.1.* For all samples it is listed that TCL dioxins/furans will be collected in two 8 ounce glass containers. However, it appears that only one was collected for samples 0004-SB-32 through 0004-SB-38. The reason for this change should be stated in the text.
17. *Appendix A.2.* The soil sample log specifies samples collected from grids within the designated sample areas. No previous reference is made to these particular sample locations. The methodology for choosing these locations should be explained in the text, or a statement declaring the selection random should be provided. The selection of these samples within the localized grid appears key to the sample identification number. This issue should also be clarified in the text.
18. *Appendix A.2.* The soil sample log sheet for sample 0004-black-99 contains information not provided in the body of the report. This sheet declares that the sample was collected due to the apparent stained soil. It was also the only sample tested for diesel range petroleum. The results, methodology, conclusions, and actions derived from this sample should be discussed in the text. The text should be modified accordingly.

If you have any questions, please call me at (215) 814-3369.

Sincerely,



Yazmine J. Yap-Deffler
Remedial Project Manager
Federal Facilities Section

cc: Paul Leonard, EPA Region III
Jeff Thornburg, MDE
Steven Richard, GSA