

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

May 29, 2001

Walter Legg
Department of the Navy
Engineering Field Activity Chesapeake
Washington Navy Yard
901 M Street SE
Washington, DC 20374

Re: Naval Surface Warfare Center - White Oak, MD

Dear Mr. Legg:

Please find below initial EPA comments on a Draft Engineering Evaluation/Cost Analysis (EE/CA) for Site 28 and Site 47 dated March 2001. The balance of EPA comments will be those of EPA's Biological Technical Assistance Group (BTAG) and will be forwarded separately in the near future.

General Comments

Site 28

1. The report appears to provide a basis for conducting a CERCLA removal action to address PCBs in soils at Site 28. Based on the extent of investigations and contamination at the site, a Record of Decision should be issued after the removal to select a remedial action for the site or to confirm that no further response action is needed. In this case, any removal action should be consistent with anticipated remedial actions.
2. The objectives of the removal action should be more clearly identified. While it is noted that one objective is to "...remediate soil so that it no longer poses a human health risk to future land users...", the reasonably anticipated future use(s) of the property and the acceptable level of human health risk are not identified. Both should be identified in the EECA. If the removal action is not protective of certain human uses (e.g., residential use, day-care child use, etc.), remedial action in the form of institutional controls would be necessary.
3. While the second objective is to "...limit the soil's potential to act as a source for surface water contamination...", the results of the basewide Baseline Ecological Risk Assessment are not considered in identifying the removal action objectives. The EECA should consider the BERA in

identifying more specific objectives related to protection of ecological receptors.

4. Without a clear identification of the objectives, it is difficult to determine whether the estimated location and volume of soils targeted for a response are reasonable. A review of the investigation results to date suggests that the extent of contamination is not fully identified and that the volume of soil to be addressed by a removal action may be greater than that estimated. However, even with a substantial volume increase, Alternative 3, Excavation, Off-Site Landfill Disposal and Site Restoration, would still appear to be the most reasonable alternative.

5. While the extent of contamination does not appear to be fully identified, it is anticipated that verification sampling to be performed in conjunction with any removal action would confirm that the soils of concern have been removed and/or characterize remaining soils as needed.

6. The report indicates that concrete would be characterized to determine whether remediation is required. The location of the concrete as well as the gravel layer should be identified in a figure. In addition, the approximate dates of the placement of the concrete and the gravel layer and the dates of PCB storage should be provided (if available).

Site 47

7. The report appears to provide an adequate basis for conducting a CERCLA removal action to address PCBs in sediments and soils at Site 47. Based on extent of investigations and contamination at the site, a Record of Decision should be issued after the removal to select the final remedy for the site or to confirm that no further action is needed.

8. Again, the objectives of the removal action should be more clearly identified. While it is noted that one objective is to "...remediate contaminated sediment and soil within the drainage channel and along the channel embankments from the storm sewer outlet to the White Oak property line so that it no longer poses a human health risk to future land users...", the reasonably anticipated future use(s) of the property and the acceptable level of human health risk under this use are not identified. The EECA should identify both. In addition, actions should not necessarily be limited to "White Oak property".

9. Another objective is to "...limit the soil and sediment's potential to migrate along the drainage channel...". While it is assumed that this objective relates to the protection of ecological receptors, there is no reference to the BERA to indicate which soils and sediments present an unacceptable risk to ecological receptors. The EECA should consider the BERA in identifying objectives related to protection of the environment.

10. A third objective is "...to remediate sediment present in the catch basin and storm sewer behind Building 90 so that it no longer pose a human health risk to future land users...". The report should provide more information regarding the known or potential migration pathway(s) for the PCBs from transformer location of concern to the "Unnamed Tributary A". A more detailed map should indicate the location of the storm sewer(s), catch basin, the "drop inlet along the storm drain in the Building 90 parking lot", etc. The report should note that two small terra cotta pipes discharge to the tributary at the storm sewer outfall and indicate the relationship of these pipes, if any, to Building 90 and the storm sewer(s).

11. The report later proposes that "abandoned storm sewer pipes in the vicinity of Building 90 would also be excavated, demolished and disposed". However, the presence of the terra cotta pipes suggests that PCBs released from Building 90 may not have necessarily been discharged to the storm sewer. In addition, it is unclear whether the referenced storm sewer pipes have already been abandoned or would be abandoned as part of the action.

12. It is indicated that the "...source of the contamination is uncertain but is believed to be caused by a transformer located in the northern portion of Building 90..." and that "...although the transformers remain within Building 90, modifications were completed on the basement floor (the floor was refloated) where the transformer leak was known to have occurred...". A map should indicate the location of the known (or potential) location(s) of the transformers of interest, the refloated floor, floor drains and any other features associated with migration pathways between the transformer and the tributary. Any file information related to the past actions taken in response to the PCB release should be included in the report as an appendix to the report.

Additional comments on the report are included in two attachments to this letter. Attachment 1 contains comments of EPA Toxicologist Linda Watson. Prior to addressing these comments, please call Linda to discuss the comments with her. Attachment 2 contains Specific and Minor Comments on the report.

Please let me know if you have any questions regarding the above.

Sincerely,

Darius Ostrauskas
Remedial Project Manager

Attachments (2)

cc: Jeff Thornburg, MDE

Section : 02.05
Site 20903-5640 (White Oak)
Doc. #: w/ 0004

ATTACHMENT 1

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

SUBJECT: NSWC White Oak
EE/CA for Sites 28 & 47

FROM: Linda R. Watson, Toxicologist
Technical Support Section (3HS41)

TO: Darius Ostrauskas, RPM
Federal Facilities Section (3HS13)

DATE: May 8, 2001

I have reviewed the NSWC White Oak, EE/CA for Sites 28 & 47 and have the following comments to offer:

1. Section 2.2, Removal Action Objectives. The last sentence in the last paragraph states " PRGs will likely be a combination of EPA Region 3 Industrial RBCs and background concentrations for NSWC-White Oak." Preliminary Remediation Goals (PRGs) should not be established by using the Region III RBC values. PRGs should be risk-based and therefore should be calculated based on the risk results from the streamlined approach presented in the document (with two minor adjustments). See comment #3 regarding the streamlined approach. Finally, the report does not discuss how it will be determined the remediation goals have been meet.
2. Section 3.4.1, Data Evaluation. The third paragraph discusses the use of a background comparative statistical procedure set forth by USEPA Region IV. Region III does not follow guidance set forth by other regions. In addition, the comparative background statistical procedure (2X the background test) should not be used as a comparative background statistical procedure because for the following reasons:
 - The procedure offers no degree of statistical validity and thus is difficult to justify scientifically.
 - The Navy has a background guidance document entitled, "Statistical Analysis of Environmental Data," SWDIV and EFA West of Naval Facilities Engineering Command, July 1999 that has been reviewed and accepted (with the exception of when background data should be used) by USEPA Region III.

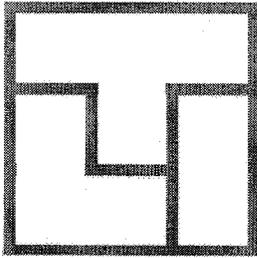
Finally, the USEPA Region III has informed NSWC White Oak that the 2X Background test should not be used in a comment document dated January 31, 2001 for the Remedial Investigation of OU-1.

3. Section 3.4.4, Risk Characterization. In the equations (cancer and non-cancer) the maximum detected concentration should be used instead of the exposure point concentration since this is a streamlined approach and dermal and inhalation is not accounted for in this streamlined risk approach. Thus, to account for these pathways for exposure the maximum detected concentration should be used. In addition, to account for these pathways that are not taken into consideration (inhalation and dermal) USEPA recommends screening at a cumulative excess cancer risk of $5E-05$ for cancer and a hazardous index (HI) of .5. This comment was made to NSWC White Oak on October 23, 2000 in a report entitled Corrective Measures Study for OU#2.

If you have any questions regarding these comments, please contact me at (X3116).

cc: Fran Burns
Eric Johnson

ATTACHMENT 2



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DCNROC3-06-ID-047

April 11, 2001

Mr. Darius Ostrauskas
3HS13
EPA Region 3
1650 Arch Street
Philadelphia, PA 19103-2029

Reference: EPA Contract No. 68-W-00-108; EPA Work Assignment No. 3-06; Naval Surface Warfare Center, White Oak, MD; Technical Review of the Engineering Evaluation/Cost Analysis for Sites 28 and 47; Task 9 Deliverable.

Dear Mr. Ostrauskas:

Enclosed please find the technical review of the *Engineering Evaluation/Cost Analysis for Sites 28 and 47- Naval Surface Warfare Center, White Oak, MD*, dated March 2001.

The sampling documented in this report does not demonstrate the complete extent of contamination requiring remediation at Site 28. As an example, when comparing Figure 3-2, Sampling Locations Site 28 to Figure 3-5, Approximate Limits of Contamination Site 28, the limit of contamination area shown at the northeast corner of the open storage fenced area is estimated without any evidence that the areas immediately outside the proposed boundary are "clean". The actual area requiring remediation may be significantly greater than the area (~1700 cy) currently used for cost analysis purposes. If the remediation area increases significantly, the cost analysis per alternative (and ultimately the proposed remediation) could change. In this specific case, unless the remediation area at Site 28 increases by an order of magnitude, Alternative 3, Excavation and Off-site Disposal would still be the preferred remediation method.

The enclosed CD-ROM contains an electric copy of the files in WordPerfect Version 9.0 (wpd) and Adobe Acrobat Version 4.0.

Thank you for the opportunity to provide U.S. EPA with technical oversight services at the Naval Surface Warfare Center, White Oak, MD. TechLaw looks forward to working with you in the future. Should you have any questions, please call me at (856) 878-0085.

Very Truly Yours,

John H. Fellingner
Project Manager

cc: J. McKenzie, EPA RPO (letter only)
TechLaw Staff
Patricia Brown-Derocher/TL Central Files

**NAVAL SURFACE WARFARE CENTER
WHITE OAK
MARYLAND**

**TECHNICAL REVIEW OF THE
ENGINEERING EVALUATION/COST ANALYSIS
FOR SITES 28 AND 47
Dated March 2001**

Submitted to:

Mr. Darius Ostrauskas
Regional Project Manager
U.S. EPA Region 3
1650 Arch Street
Philadelphia, PA 19103-2029

Submitted by:

TechLaw, Inc.
1 Penn Center
Suite 1705
Philadelphia, PA 19103

	EPA Work Assignment No.	03-06
Contract No.	68-W-00-108	
TechLaw PM	John Fellingner	
Telephone No.	856/878-0085	
EPA WAM	Darius Ostrauskas	
Telephone No.	215/814-3369	

11 April 2001

NAVAL SURFACE WARFARE CENTER
WHITE OAK
MARYLAND

TECHNICAL REVIEW OF THE
ENGINEERING EVALUATION/COST ANALYSIS
FOR SITES 28 AND 47
Dated 7 March 2001

SPECIFIC COMMENTS

1. **Section 3.4.1, Data Evaluation, page 3-7:** The third paragraph states that when the maximum detected metals concentration exceeds screening levels and is greater than twice the average background, the metal was retained as a COPC. Please revise the text to include a discussion on the statistical significance of the twice average background value, and the appropriateness of using this number instead of the calculated UCLs.
2. **Table 3-4, Comparison of Metals Concentrations in Subsurface Soils, page 3-23:** Manganese lists a 2 times background average concentration of 242.3 mg/kg and a maximum background concentration of 70 mg/kg, which does not match the analytical data provided. Please review the data and correct these concentrations in Table 3-4.
3. **Appendix A.2, Risk Assessment Data:** This Appendix should contain the Statistical Summary of Analytical Results, Background Subsurface Soil (Footnote 2, Tables 3-3 and 3-4), but actually contains the 95% UCL calculations. Revise this Appendix to include the Statistical Summary of Analytical Results, Background Subsurface Soil.
4. **Appendices A.3 and B.4, Removal Action Alternative Cost Estimates:** The first page of each Appendix section lists three sources used for the cost estimates provided in each Appendix. One of these sources is "Past experience with similar technologies/processes." Please revise the spreadsheets to footnote those unit costs which are based on past experience with similar technologies/processes.

MINOR COMMENTS

1. **Section 1.7, Climate and Meteorology, page 1-4:** This section describes the average, annual temperatures, precipitation, and wind conditions at the Site. No reference is provided for these descriptions. Please revise the text to include a reference for the provided information.
2. **Section 3.4.4, Risk Characterization, page 3-9:** The last sentence states that the risk estimations are presented in Tables 3-4 and 3-5. The risks are actually presented in Tables 3-5 and 3-6. Please revise the text accordingly.

3. **Table 3-3, Comparison of Metals Concentrations in Surface Soil, page 3-22:**
Footnote 2 lists the statistical summary in Appendix A.4, but the summary is actually in Appendix A.2. Please revise the table accordingly.
4. **Table 3-4, Comparison of Metals Concentrations in Subsurface Soil, page 3-23:**
Footnote 2 lists the statistical summary in Appendix A.4, but the summary is actually in Appendix A.2. Please revise the table accordingly.
5. **Table 3-5, Streamlined Risk Evaluation in Surface Soil, page 3-24 and Table 3-6, Streamlined Risk Evaluation in Subsurface Soil, page 3-25:** Footnote 1 lists the exposure point concentration summary in Appendix A.4, but the summary is actually in Appendix A.2. Please revise the table accordingly.