



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION I

J.F. KENNEDY FEDERAL BUILDING, BOSTON, MASSACHUSETTS 02203-2211

May 25, 1994

Deborah Carlson, RPM
U.S. Department of the Navy
Northern Division
Naval Facilities Engineering Command
10 Industrial Highway
Code 1823, Mail Stop 82
Lester, PA 19113-2090

RE: EPA Review of Draft Phase II Remedial Investigation Report
Volume II, Old Fire Fighting Training Area, Naval Education
and Training Center (NETC), Newport, Rhode Island.

Dear Ms. Carlson:

Attached you will find EPA's comments on the above-referenced document, listed as specific comments and numbered for future reference.

Of particular concern are the Navy's statements that residential use of the site is unlikely, and groundwater would not be used as a drinking water source. The Navy must provide additional information on the composition and classification of the site groundwater and propose the appropriate institutional controls to ensure that this parcel of land will not be used for residential purposes.

Overall, the draft report appears to be acceptable after incorporation of the attached comments and the revised sediment and biota data.

If there are any questions regarding the attached comments, please feel free to call me at 617/573-9614.

Sincerely,

A handwritten signature in cursive script, appearing to read "Andrew F. Miniuks".

Andrew F. Miniuks, Remedial Project Manager
Federal Facilities Superfund Section

Attachment

cc: Paul Kulpa, RI DEM/DSR
Brad Wheeler, NETC
Mary Pothier, CDM-FPC

6/6/94 cc: PROJECT FILE
CODE 1822/TB
CODE 1831/SH
TRC-EC



Attachment

Draft Phase II Remedial Investigation Report
Volume II - Human Health Risk Assessment
Old Fire Fighting Training Area

General Comments:

1. The Navy has ruled out groundwater as a potential pathway without proposing the institutional controls which would be used to ensure that the ingestion of groundwater would not occur.

An additional pathway that appears to have an unacceptable risk is current/future ingestion of mussels and clams. The report should note that the risks determined for this pathway are only valid if the associated data is acceptable (i.e., collected in accordance with EPA guidance and acceptable protocol). As previously noted, EPA has not been satisfied with the data collected to date (e.g., samples have been composited and the near- and off-shore study has been criticized as incomplete and inconclusive).

Identify the status of the data used in the risk calculations and identify if the data will be superseded with more accurate data. Upon collection of additional data, revise the HHRA to reflect the most accurate and updated data.

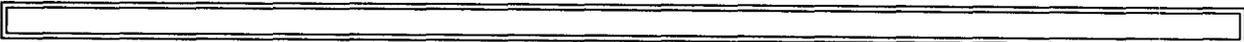
2. The previous comment also applies to the risks associated with the pathways for sediment, including incidental ingestion of sediment and dermal contact with sediment.

The sediment data in this risk assessment should be replaced with data collected in accordance with EPA guidance which may result in different risk numbers.

The final HHRA is therefore dependent on the final data as required to support the ecological risk assessment. When available, revise the HHRA to reflect the final data used in the ecological risk assessment.

3. EPA Region I risk assessment guidance recommends that the oral RfD for naphthalene be utilized to assess the toxicity of all noncarcinogenic PAHs without a reference dose (RfD). A provisional RfD has been developed for naphthalene of 4×10^{-2} mg/kg/day. This value must be used for acenaphthylene, benzo(g,h,i)perylene, and phenanthrene.

Revise the text and the tables of the report accordingly.



Specific Comments:

4. Executive Summary, Page ES-7, 2nd Bullet

Specify that Scenario 2 evaluates exposure to future off-site "adult" residents.

5. Executive Summary, Page ES-7, Last Paragraph and Section 5.1, Page 5-3

The reason(s) that the residential scenario is excluded from the Phase II HHRA must be expanded. As mentioned in the cover letter, propose the appropriate institutional controls to ensure that this parcel of land will not be used for residential purposes.

6. Executive Summary, Page ES-9, 1st Paragraph

Define "RfD" as the reference dose the first time the term is used in the text.

7. Executive Summary, Page ES-9, 2nd Paragraph

EPA's acceptable lifetime risk range is properly expressed as 10^{-4} to 10^{-6} , rather than 10^{-6} to 10^{-4} as expressed in the text.

The Navy should revise the text accordingly.

8. Executive Summary, Page ES-13, 1st Paragraph

Revise the text to clearly state that the estimated cancer risks for children/youths under Scenario 1 for the incidental ingestion of and dermal contact with soils were less than the cancer risk range of 10^{-4} to 10^{-6} . As currently written, it is not clear.

9. Executive Summary, Page ES-17, 1st Bullet

If the mean concentrations exceeds the maximum concentrations, then the maximum concentration is usually used in the risk calculations.

Revise the text to provide the rationale for using the mean concentration even though it exceeds the maximum detected concentration.

Clarify whether or not this approach is likely to overestimate site risks.

10. Table of Contents, List of Acronyms

- a. Add the acronym "NOAEL" with the description of "No Observed Adverse Effect Level".
- b. Add the acronym "LOAEL" with the description of "Lowest Observed Adverse Effect Level".
- c. Change the description of the acronym for "TCDD" to "Tetrachloro-p-dibenzodioxin".
- d. Add the acronym "TCDF" with the description of "Tetrachloro-p-dibenzofuran".
- e. Change the description of the acronym "TIC" to "Tentatively Identified Compound".

11. Section 2.2, Page 2-3, 2nd Paragraph; and Page 2-8, 1st Step, 1st Bullet and Table 2-1

The surface soil samples collected in both Phase I and II were collected at intervals less than 1 foot below grade. Therefore, **less than 1 foot** must be defined as the limit for surface soil for the HHRA, rather than **less than 2 feet** as currently written in the text.

12. Section 2.2, Page 2-6, 2nd Paragraph

Provide the rationale for not analyzing the clams for butyltins.

13. Section 2.2, Page 2-7, 4th Step

Specify the reason the blank data was not evaluated for soil gas, sediment, and shellfish. Clarify if blank data was collected for these medium.

14. Section 2.7, Pages 2-18 to 2-19

Revise the text to include a discussion of the variance of the sample counts for certain compounds vary (e.g., boron, cyanide, silver, 2-butanone, and SVOCs). Include within this revision to the text whether or not this variation is due to rejected data and/or differences in the list of analytes for Phase I and Phase II.

15. Section 2.9, Pages 2-22 to 2-25

Although the criteria used to select COCs (i.e., frequency of detection, site background for soils, and status as an essential nutrient) is inclusive, the large number of compounds detected at the site may warrant the selection of a smaller group of COCs.

For example, the additional criteria listed on page 2-23 of the text (i.e., toxicity, chemical/physical properties, and available regulatory criteria) could be used by the Navy to generate a smaller list of contaminants.

As currently written, the large number of COCs carried through the risk assessment makes it difficult to focus on contaminants of significance.

16. Section 4.0, Page 4-1, 1st Paragraph

Only the most recent version of IRIS should be used as a source for the cancer slope factors and the RfDs. IRIS from 1993 and 1994 is cited in this section and in the references.

Revise the text to reflect only this reference.

The July 1993 Supplement to HEAST should also be used as a reference. Revise the text accordingly.

17. Section 4.2, Page 4-5, 1st Paragraph

Revise the text to define the NOAEL as the no "observed" adverse effect level.

18. Section 4.3, Page 4-7, 1st Paragraph

a. Specify which version of EPA's IU/BK model was used.

The Navy should review the following to determine the applicability to the text:

Guidance Manual for the Integrated Exposure Uptake Model for Lead in Children, Publication Number 9285.7-15-1EPA/540/R-93/081, PB 93-963510, Feb. 1994

Integrated Exposure Uptake Model for Lead in Children (IEUBK), version 0.99d, Publication No. 9285.7-15-2 PB93-963511

The latter reference is software.

- b. Specify if maximum or mean soil and sediment concentrations were compared to the concentration of 500 mg/kg.

19. Section 5.2, Page 5-5, 2nd Paragraph

Revise the text to state whether or not the NJDEPE analyses of total and hexavalent chromium percentages "believed to be reasonable" are based on similarities of the soil types.

If Navy has not collected site-specific information on chromium speciation is not available, then all of the chromium should be assumed to be in the hexavalent form.

Revise the text accordingly.

20. Section 6.1, Page 6-1, 3rd Paragraph

Total pathway cancer risks should be compared to EPA's acceptable risk range of 10^{-4} to 10^{-6} , rather than 1×10^{-6} to 1×10^{-4} .

21. Table 2-1:

Change note b to "Subsurface soil samples were collected from a depth of 2-17 feet, only samples collected from 2-10 feet are included in the HHRA."

22. Appendix A, Table A-4

Reverse the headings for furans and dioxins. For example, TCDD-2,3,7,8 is a dioxin and TCDF-2,3,7,8 is a furan.