



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

**REGION I**

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

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February 3, 1997

Mark Evans, Remedial Project Manager  
U.S. Department of the Navy  
Naval Facilities Engineering Command  
Northern Division  
10 Industrial Highway  
Code 1823, Mail Stop 82  
Lester, PA 19113-2090

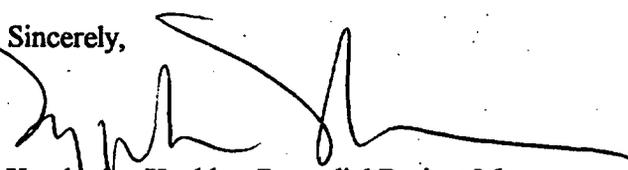
Re: Review of Responses to Comments on the Draft Phase II RI and Revised Chapter 9  
Ecological Risk Assessment

Dear Mr. Evans:

I am writing in response to your request for EPA to review the Evaluation of Responses to Comments on the Draft Phase II Remedial Investigation ("RI") and Revised Chapter 9 Ecological Risk Assessment dated December 30, 1996. Since many of the comments will be resolved via text changes in the revised RI, EPA must therefore withhold formal concurrence until we have reviewed the revised RI. Detailed comments are provided in Attachment A.

I look forward to working with you toward completion of the Phase II RI. Please do not hesitate to contact me at (617) 573-5777 should you have any questions or wish to arrange a meeting.

Sincerely,

  
Kymberlee Keckler, Remedial Project Manager  
Federal Facilities Superfund Section

Attachment

cc: Mark Lewis, CTDEP, Hartford, CT  
Andy Stackpole, NSBNL, Groton, CT  
Patti Lynne Tyler, USEPA, Boston, MA  
Jennifer Hayes, Gannett Fleming, Harrisburg, PA  
Matthew Cochran, Brown & Root, Pittsburgh, PA



## ATTACHMENT A

**General comment 2** EPA's original comment was intended to elucidate the uncertainties associated with identifying the specific sources of groundwater contamination. It was not intended to be limited solely to No Further Action Sites. For example, it is unclear whether groundwater contamination at the Area A Downstream was caused by contaminants in this area or from an upgradient source. This was one of the reasons why EPA proposed that groundwater should be evaluated separately. The Final Phase II RI Report must explain that groundwater will be evaluated as part of a separate OU.

All sites that exhibit an actionable risk must proceed with a feasibility study ("FS"). "Limited action," such as groundwater monitoring or institutional controls, should be two of the alternatives that are evaluated with that FS. While EPA agrees that substantial remedial action may not be necessary at these sites, it is premature to conclude what the remedy will be for these sites. Please explain that an FS will be prepared.

**General comment 3** Since the Connecticut Department of Environmental Protection is currently in the process of reclassifying the groundwater from GA to GB, it may be prudent to wait until the reclassification is complete. This would strengthen the RI - as the current proposal is risky. Alternatively, copies of pertinent documents including correspondence with CTDEP regarding the status of reclassification should be included in an appendix to the Final Phase II RI.

**General comments 4 & 6** The chrome valency issue and the current approach of assuming chromium is all hexavalent needs to be summarized in the uncertainty sections. As indicated previously, it is inappropriate to use literature values. EPA generally requires site-specific speciation information for sites where chromium is a contaminant of concern.

The format and discussion in the site-specific ecological risk assessment (Chapter 9) should be integrated into the other site-specific ecological risk assessments in the Phase II Remedial Investigation.

**General comment 8** Although the screening tables in Appendix I.5 have been corrected to reflect mg/L for surface water contaminants, the predicted chemical concentration by media tables still have water as mg/kg in Appendix I.5.

**General comment 12** EPA's original comment requested a comparison of average and maximum doses (mg/kg/day) to acute and chronic reference toxicity values. Text was added to Chapter 9 reflecting the use of acute benchmarks for aquatic and terrestrial receptors. Also, hazard quotients derived with acute

benchmarks for aquatic biota were added to Appendix I.5. How were the Maximum Acute HIs for the terrestrial receptor calculated? How were the acute dose (mg/kg/day) and maximum acute HI derived? The text states that terrestrial acute benchmarks were used, but Appendix I.5 does not include the derivation of acute benchmarks. Please explain how the HI was calculated using acute benchmarks for the mallard duck, barred owl, raccoon, and short-tailed shrew. Were the same doses per pathway used to calculate both the chronic HIs and the acute HIs? Please explain and provide example calculations for the new pages added to Appendix I.5 that identify contributors to risk based on acute doses.

The soil intake concentrations provided in the predicted dose tables are not accurate. For example, inadvertent soil ingestion is assumed to be 2% for the mallard. Two percent of the food ingested is  $1.196 \times 10^3$ , not  $2.52 \times 10^3$  as presented in the table for the DDT soil ingestion pathway. The correct soil ingestion concentration appears to have been used in the calculation.

- General comment 13 Though some sediment benchmarks have been revised in Appendix I.5, a footnote specifying the foc value used in the calculations has not been provided as requested.
- General comment 34 EPA indicated that the nature and extent of contamination in the lower Subase area must be fully investigated. EPA agreed with the Navy that the RI for this site could be conducted in a tiered approach because of the considerable existing database. The Lower Subase Background Report was developed as part of the first tier of data collection so as to identify potential data gaps. EPA has neither supported a "containment option" for this site nor agreed with the Navy's approach to pursue it. (In fact, this has never been discussed with EPA.) Appropriate remedial options for this site must be evaluated within an FS.
- Specific comment 6 Enclosure 4, HHE. The approach was modified through discussions on the CBU Drum Storage Area (see EPA's letter dated October 31, 1996 and an electronic mail message dated September 4, 1996).
- Specific comment 19 Section 9.7.5.3 (page 9-76) should discuss the uncertainty of the cadmium benchmark value used to assess potential risk to soil invertebrates.
- Specific comment 38 Please provide a citation for Beyer *et al.*, 1996.
- Specific comment 42 The table needs revision as identified in EPA's electronic mail message dated September 4, 1996.