



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION I
JOHN F. KENNEDY FEDERAL BUILDING
BOSTON, MASSACHUSETTS 02203-0001

August 19, 1997

Mr. Philip Otis
U.S. Department of the Navy
Northern Division - NAVFAC
10 Industrial Highway
Code 1811/PO - Mail Stop 82
Lester, PA 19113-2090

Re: Response to Electronic Mail Questions Concerning Draft Technical Memorandum Human Health Risk Assessment (HHRA) for IR Program Sites 06, 10, 11 and 13, dated June 1996, at the former Naval Construction Battalion Center (NCBC) - Davisville, Rhode Island

Dear Mr. Otis:

The Environmental Protection Agency (EPA) has reviewed the above referenced document. Please find our comments enclosed. Overall, the risk assessment will be sufficient once the enclosed comments are addressed. Additional hard copy information is being requested and will be forwarded as soon as it is available.

If you have any other questions with regard to this letter, please contact me at (617) 573-5736.

Sincerely,

A handwritten signature in cursive script, appearing to read "Christine Williams".

Christine A.P. Williams, RPM
Federal Facilities Superfund Section

Enclosure

cc: Richard Gottlieb, RIDEM
Walter Davis, CSO
Jim Shultz, EA -
Bryan Wolfenden, RI RC&D Council Inc.
Howard Cohen, RIEDC
Susan Licardi, ToNK
George Horvat, Dynamac



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EPA Response to E-Mail questions on HHRA for Sites 6, 11 & 13

****Comment 14.** Table 1-21 and in all risk calculations for child. Cancer slope factor for vinyl chloride should be doubled when assessing children's risk.

Response: REQUIRES DISCUSSION. Do not know/understand the scientific basis for this. Needs documentation.

EPA Response: The scientific and policy basis for this approach will be provided. This guidance pertaining to vinyl chloride is available in previous EPA-HQ memoranda. No change in the original comment.

****c) Comment:** EPA interim draft guidance provides guidance on adjusting chemical toxicity values. For the chemicals in this risk assessment, oral absorption is close to 100%, therefore adjustments to the toxicity values are not necessary. (Specifically, the draft interim guidance shows that arsenic, PAHs, PCBs, and some pesticides do not require adjustment because the gastrointestinal (GI) absorption of the compounds in their respective toxicity studies was not significantly below 100%. Cadmium, however, was identified as requiring adjustment using a factor of approximately 5%). It should be noted that assuming the default value of 100% may underestimate dermal risks. Please include in an uncertainty section of the report.

Response: No dermal toxicity values will be estimated for this risk assessment. Report text will be modified to reflect the assumption of approximately 100% oral absorption for COCs and no need to adjust oral toxicity values for dermal risks estimates. Risk estimates for any dermal will be re-run using unadjusted (i.e., oral) toxicity values. **HOWEVER, REQUIRES DOCUMENTATION / EPA REFERENCE SOURCE** for new "national" dermal guidance.

EPA Response: No change in the original comment. The interim guidance document is not available for release because it is still undergoing internal EPA review. Regarding the interim dermal risk assessment guidance provided in the comment, EA should cite personal communication with EPA Region I (Jayne Michaud).

EPA Response to E-Mail questions on HHRA for Sites 6, 11 & 13

****f)** Comment: EPA has a provisional subchronic RfC for Cr(VI) of 4e-6 mg/cu m (derived by STSC), which may be used in this risk assessment.

Response: REQUIRES DISCUSSION; HAVE NEVER SEEN THIS BEFORE; SEEMS VERY LOW (UNITS?) & WANT TO SEE DOCUMENTATION/SOURCES FROM EPA.

EPA Response: No change in original comment. A copy of supporting documentation (NCEA 1993) will be provided to the Navy.

****g)** Comment: Bis (2-ethylhexyl) phthalate. The RfD is based on a one year assay; therefore, the footnote 6 method is incorrect and the RfD should be applied to subchronic exposures.

Response: NEEDS DISCUSSION. The RfD has a total UF of 1000, 10 each for inter- and intra-species variation, and 10 for "less-than-lifetime" exposure. Report text was incorrect in it's discussion of individual UFs. Therefore, we feel the subchronic should still be the Chronic x 10.

EPA Response: Original comment withdrawn, but risk assessor should note that this assumption may underestimate risk slightly for subchronic exposure. EA is correct that if the RfD for a particular chemical was derived using a UF of 10 for subchronic duration, it is appropriate to multiply by 10 for the subchronic RfD. In using this approach, the risk assessment should note that for this chemical, BEHP, the study was longer than subchronic (but since it was less than lifetime the UF of 10 was applied to derive the RfD).

****j)** Comment: Aroclor 1248: the Reference Doses used on this table are inappropriate and should be omitted, therefore only cancer risks due to exposure to Aroclor 1248 can be evaluated.

Response: REQUIRES DISCUSSION. Do not know/completely understand basis for statement. Need documentation. Also, why only 1248, and not 1260 as well? Is driven by difference in extent of chlorination?

EPA Response: Withdraw original comment based on the following explanation. Aroclor 1248 and 1260 should be treated similarly, and in the absence of published IRIS values, it is appropriate to use the RfD for Aroclor 1254 for both Aroclors 1260 and 1254. This approach is consistent with methods recommended by NCEA.