

RESPONSES TO
CTDEP'S APRIL 21, 1998 LETTER OF COMMENTS
REGARDING THE
FEBRUARY 1998 REVISED APPLICATION FOR
ALTERNATIVE DIRECT EXPOSURE CRITERIA
FOR THE AREA A DOWNSTREAM SITE
NAVAL SUBMARINE BASE NEW LONDON
GROTON, CONNECTICUT

June 5, 1998

1. Letter, page 1:

Comment: The Navy has not sufficiently addressed the risks posed by dermal contact with site contaminants. The Navy must conduct a full quantitative assessment of risks posed by dermal exposure to site contaminants.

Response: The Navy recognizes that U.S. EPA Region I has recently changed their position on dermal risk evaluation for PAHs, as well as other chemicals. However, during the original scoping meetings for the Phase II Remedial Investigation (RI) Report (B&R Environmental, March 1997), which were held in the latter months of 1996, the Navy was specifically directed by U.S. EPA Region I to perform a quantitative evaluation for PCBs, dioxins, and cadmium only and a qualitative evaluation for other detected chemicals. This approach was used in the RI Report, which the State has had the opportunity to review. No comments on the approach to the dermal risk assessment in the RI Report were received from the State. Since the Application for Alternative Direct Exposure Criteria (ADECs) is derived from the information presented in the RI Report, this approach was considered to be appropriate for the application.

A Record of Decision (ROD) has already been signed for the Area A Downstream. The remediation goals for the site were based primarily on the mitigation of ecological risks. Since ecological endpoints are typically more conservative than human health endpoints, the potential risks associated with human health are expected to be adequately addressed at the site.

It should be noted, however, that future risk assessment activities for the Lower Base will be performed using U.S. EPA Region I's current approach to dermal risk evaluation.

2. Letter, page 1:

Comment: The Navy proposes to derive exposure criteria for 4,6-dinitro-2-methylphenol, using 2-methylphenol as a surrogate. The Navy states that no reference dose value is available for 4,6-dinitro-2-methylphenol. However, the Navy's application for approval of criteria for additional polluting substances for the Lower Base site dated December 23, 1997 lists an RfD for this compound of 1E-4 mg/kg/day. This is the correct value currently listed in the EPA Region III risk based concentration table, dated October 22, 1997. The Navy should use this value in their calculations, rather than using 2-methylphenol as a surrogate.

Response: The Navy recognizes that the National Center for Environmental Assessment (NCEA) has recently approved the use of a provisional reference dose (RfD) for 4,6-dinitro-2-methylphenol (1E-4 mg/kg/day), as summarized in the U. S. EPA Region III Risk-Based Concentration (RBC) table dated October 22, 1997. However, the application for ADECs was originally submitted to CTDEP on October 17, 1997, before the provisional RfD became available. In response to comments received from the State,

this application for ADECs was subsequently revised and resubmitted on February 11, 1998 but, since none of the State's comments requested a re-computation of risks based on the newly available RfD, this part of the application was left unchanged.

The use of the currently accepted provisional RfD does not impact the results of the application. The residential and industrial Direct Exposure Criteria (DECs) for 4,6-dinitro-2-methylphenol, calculated using Connecticut's Remediation Standard Regulations [RSR, Section 22a-133k-2(d)] and the provisional RfD, are 6.7 mg/kg and 204 mg/kg, respectively. Detected concentrations of this chemical (maximum of 6.4 mg/kg in Zone 3) are less than both the calculated residential and industrial DECs, indicating that the risks associated with 4,6-dinitro-2-methylphenol are minimal.

3. Letter, pages 1 and 2:

Comment: Examination of sampling results indicates that 4-chloro-3-methylphenol was only detected at one sampling location in Zone 2. This location also contained high concentrations of DDT and its residues. For this reason, the Department expects that the 4-chloro-3-methylphenol will be removed in the process of excavating the pesticide contaminated soil. Therefore, the Department will not require the Navy to derive a direct exposure criterion for this compound at this site unless it is detected in the confirmation samples. Please note that a qualitative risk assessment was performed by the Department of Public Health for 4-chloro-3-methylphenol. DPH has determined that at the concentrations detected in the Area A Downstream soils, this compound would not be a health concern for trespassers.

Response: No further response is needed. The risks associated with 4-chloro-3-methylphenol are expected to be minimal, as indicated in the corresponding comment. A direct exposure criterion for this compound will not be developed for the site.