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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 1
1 CONGRESS STREET, SUITE 1100
BOSTON, MASSACHUSETTS 02114-2023

November 20, 2001

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: Comments on the Responses to USEPA Comments on the Draft Final Basewide Groundwater Operable Unit Remedial Investigation Report

Dear ~~Mr. Evans~~: Mark

Thank you for the opportunity to review the *Responses to USEPA Comments on the Draft Final Basewide Groundwater Operable Unit Remedial Investigation Report*. Detailed comments are provided in Attachment A.

General Comment 2 discusses EPA's programmatic desire to evaluate risks to children. The comment requests that risks to children from exposure to groundwater be quantitatively evaluated in this risk assessment. The response to this comment provides a detailed explanation of the expected magnitude of risks to the child receptor. The response proposes additional text to address this issue. The text proposed appears accurate and addresses concerns regarding potential risks to future child residents who consume groundwater. EPA agrees with this response, but will need to verify the text addition in the next version of this RI Report.

I look forward to working with you and the Connecticut Department of Environmental Protection to protect the groundwater resources of the Naval Submarine Base. Please do not hesitate to contact me at (617) 918-1385 should you have any questions.

Sincerely,

Kymberlee Keckler, Remedial Project Manager
Federal Facilities Superfund Section

Attachment

cc: Mark Lewis, CTDEP, Hartford, CT
Dick Conant, NSBNL, Groton, CT
Jennifer Stump, Gannett Fleming, Harrisburg, PA

ATTACHMENT A

Page	Comment
p. 5-28, §5.5 (Comment 5)	The proposed additions to text are a significant improvement, in that they bring in specific conclusions that are conditioned on data collected from the site. I suggest that the statements regarding redox conditions be supported with specific ranges as collected in conjunction with the BGOURI (LTM Round 4) in the same fashion as the range of pH values is cited. For example, the proposed text might be expanded to: "Groundwater at Site 2 exhibits highly reducing oxidation-reduction potential, especially in those wells at the base of the landfill (-126 to -451 mV in the BGOURI (Round 4) sampling). The groundwater pH ..." The proposed text notes that the As(III) species H_3AsO_3 is favored under site groundwater Eh-pH conditions. While this seems likely, the statement would be strengthened with a citation for the basis for this conclusion. Was a geochemical model calculation run (*e.g.*, PHREEQC, GWB, *etc.*)? Was a published Eh-pH diagram consulted? If the latter, was it constructed for conditions (*e.g.*, elemental concentrations) appropriate to Site 2 groundwater? The proposed text also notes that mercury sulfide would be likely to form under site Eh-pH conditions. Again, what is the basis for this conclusion? Can this be reconciled with the statements regarding controls on arsenic concentration (*e.g.*, are conditions sufficiently reducing to dissolve ferric oxides and liberate sorbed arsenic, but not so reducing as to result in precipitation of iron/arsenic sulfides)?