



DEPARTMENT OF THE NAVY

NORTHERN DIVISION  
NAVAL FACILITIES ENGINEERING COMMAND  
10 INDUSTRIAL HIGHWAY  
MAIL STOP, #82  
LESTER, PA 19113-2090

5090  
Code 1823/ME

IN REPLY REFER TO

MAR 22 1996

Mr. Mark Lewis  
Connecticut Department of Environmental Protection  
Bureau of Water Management  
Permitting, Enforcement & Remediation Division  
79 Elm Street  
Hartford, CT 06106-5127

Subj:: RESPONSES TO CONNECTICUT DEP'S FEBRUARY 15, 1996 COMMENTS  
REGARDING THE DRAFT AREA A EAST END INVESTIGATION REPORT,  
NAVAL SUBMARINE BASE NEW LONDON, GROTON, CT

Dear Mr. Lewis:

Please find enclosed the Navy's responses to your comments on the Area A East End Investigation Report. Once we have mutually agreed to the responses on both the State and USEPA comments, we will finalize the report.

I look forward to working with you and the EPA on this project. Please call me at (610) 595-0567 ext. 162 if you wish to discuss further.

Sincerely,

A handwritten signature in cursive script that reads "Mark Evans".

MARK EVANS  
Remedial Project Manager  
By direction of the Commanding Officer

Copy to:

K. Keckler, USEPA Region I  
Andrew Stackpole, SUBASE NLON  
Jean-Luc Glorieux, Brown & Root - Pittsburgh

**RESPONSES TO  
CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION  
FEBRUARY 15, 1996 LETTER OF COMMENTS ON  
DRAFT AREA A EAST END INVESTIGATION REPORT  
AREA A LANDFILL REMEDIAL DESIGN  
NAVAL SUBMARINE BASE NEW LONDON  
GROTON, CONNECTICUT**

March 21, 1996

1. Section 1.2, Site Description and Project Background, Page 1-5, 3rd. paragraph:

Comment: This paragraph states that a draft Record of Decision is currently under review for signature by the Navy and US EPA. This should be corrected to reflect that the ROD was signed by both parties and became effective in September 1995.

Response: The text of Section 1.2, Page 1-5, 3rd. paragraph will be corrected to reflect that a Record of Decision (ROD) has been signed by the Navy and USEPA and became effective in September 1995.

2. Section 2.1, Review of Aerial Photographs, Page 2-1:

Comment: EPA's comment letter requests that several additional photographs listed in Appendix E be reviewed, particularly those from the 1950's. It should be noted that black and white aerial photographs from 1951 (and 1934) are also available for inspection at the Connecticut State Library in Hartford. In addition, the Department's Natural Resources Center has available for loan black and white aerial photographs from 1965, 1970, 1980, 1985-86, and 1990. Some of the Natural Resources Center photographs may duplicate photos listed in Appendix E. The Department's Office of Long Island Sound Programs also has available false color IR aerial photos for 1974, 1980, 1981, 1986, and 1990. The Natural Resources Center may be contacted at (860) 424-3555, while the Office of Long Island Sound Programs may be contacted at (860) 424-3034. Please contact me if you require assistance in inspecting or borrowing these photographs.

Response: Comment No. 4 of USEPA's January 22, 1996 stated that: "The text concerning the review of aerial photographs should discuss EPIC photographs available from the 1950's, in particular the photograph taken on April 10, 1957 that is listed in Appendix E. Earlier photographs may provide additional information pertaining to the type of fill material placed in the area of concern."

The Navy's response to this comment was: "The EPA's Photographic Interpretation Center (EPIC) report describes the Area A Landfill as a feature not present in either of the photographs dated October 8, 1941, October 9, 1941, June 19, 1943, November 21, 1951, August 24, 1952, and April 10, 1957. The text of Section 2.1: "Review of Aerial Photographs" will be amended to mention this fact."

Evaluation of the 1934 and 1951 black and white aerial photographs available at the Connecticut State Library should not be necessary since there are no records and no evidence of disposal activities at the Area A Landfill prior to 1957, as confirmed by the evaluation of the 1941, 1943,

1951, and 1957 EPIC photographs.

Evaluation of the 1965-1990 black and white and false color IR aerial photographs which may be obtained from the Connecticut Department of Environmental Protection (CTDEP) Natural Resources Center and Office of Long Island Sound Programs, respectively, should not be necessary since 5 black and white aerial photographs, dated March 2, 1965, March 1, 1970, March 27, 1975, April 17, 1980, and March 26, 1990, have previously been provided to the Navy by CTDEP and have already been evaluated as part of this investigation.

The Navy believes that the nature and extent of the disposal activities at the Area A Landfill during the 1957 to 1973 time period have been adequately defined by the evaluation of the 1963, 1969, and 1970 EPIC photographs and the 1965 and 1970 photographs provided by CTDEP. The Navy also believes that the absence of disposal activities after 1973 has been well documented by the evaluation of the 1974, 1981, 1985, 1986, and 1991 EPIC photographs and the 1975, 1980, and 1990 photographs provided by CTDEP. The text of Section 2.1 will be amended to more clearly identify all of the aerial photographs which were evaluated and Appendix E will be expanded to include a listing of the photographs provided by CTDEP.

3. Section 4.1, Analytical Testing, Page 4-1:

Comment: The second paragraph states that very few contaminants were detected in the soil samples and these were generally in low concentrations at random locations, and did not appear to indicate the presence of solid waste. The State agrees that no solid waste was directly observed in the eastern end of the Area A Landfill, and that the fill in this area appears to be construction fill which was deposited separately from the solid waste in the adjacent Area A Landfill. However, several metals were detected at consistently elevated concentrations in soil samples collected in test pits, and the potential for these soils to leach and contaminate groundwater was not evaluated through TCLP or SPLP analysis. Several of the soil samples also significantly exceed the site-specific background concentrations listed in the report entitled "Background Concentrations of Inorganics in Soil", dated April 1995.

The Department is concerned that the total metal concentrations detected in several soil samples suggest that these soil may pose a threat to ground water. While this does not appear to warrant extending the cap into this location, a limited removal action may be warranted to address what appear to be localized "hot spots" of metal contamination. For this reason, we suggest that several additional soil samples be analyzed for metals by one of the leaching procedures. The results of the leachate analysis can then be compared to the Pollutant Mobility Criteria.

Response: As stated in the Navy's response to Comment No. 9 of USEPA's January 22, 1996 letter, Section 4.0: "Samples Testing Results" will be significantly expanded to discuss in some detail the analytical results.

Section 4.0 will be modified to provide in tabular form (new Table 4-5) a comparison between detected concentrations and the Direct Exposure Criteria in Soil provided in the CTDEP's December 13, 1995 Proposed Remediation Standard Regulations. As will be shown in the new Table 4-5, the maximum detected total lead concentration of 150 mg/kg is well below the 500 mg/kg (residential) and 1,000 mg/kg (industrial) direct exposure cleanup criteria calculated in accordance with the equations provided in the referenced regulations. As will also be shown in Table 4-5, the maximum detected total chromium concentration of 36.1 mg/kg is well below the 100 mg/kg residential and industrial direct exposure cleanup criterion calculated in accordance with the equations provided in the referenced regulations.

It should also be noted that the heavy metals that were detected were from the soil sample collected in test trench LF-TP26. As shown on Figure 3-1 and in the test trench logs attached as Appendix C.2, the LF-TP26 sample was collected at a location which will be capped by the Area A Landfill cover system as currently designed.

In addition, as shown in Table 1-1, TCLP extracts of subsurface soil samples from sample location 2WMW3S were analyzed during the Phase I RI. These analysis results appear to indicate no significant contaminant mobility.